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ANNUAL REPORT

OF THE

Department of Public Works

OF THE

NORTH-WEST TERRITORIES

1902

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY



REGINA :

JOHN A. REID, GOVERNMENT PRINTER

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DEPARTMENT OF PUBLIC WORKS,

REGINA, *December 31st, 1902.*

To His Honour

AMÉDÉE EMMANUEL FORGET,

Lieutenant Governor of the North-West Territories.

SIR,—

I have the honour to transmit herewith the Annual Report of the Department of Public Works for the year 1902.

I have the honour to be, Sir,

Your obedient servant,

ARTHUR L. SIFTON,

Commissioner of Public Works.

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DEPARTMENT OF PUBLIC WORKS,

REGINA, *December 31st, 1902.*

ARTHUR L. SIFTON, Esq., M.L.A.,

Commissioner of Public Works.

SIR,—I have the honour to submit the Annual Report of the Department of Public Works for the year 1902.

The increase and extension in the work of all branches of the Department referred to in the last annual report will be found, from the detailed information given in these pages with reference to the work of the Department during the past year, to have again practically doubled over the work of the preceding year.

This marked increase was to have been expected from the rapid increase of settlement and the extension of the areas within which the Department has been called upon to perform public works during the past season.

The details and information contained in this report with reference to the general question of public works, and more particularly regarding the matter of bridge construction, the survey of roads, drainage and local improvement districts are of themselves a marked indication of the rapid strides which have been made during the past year towards the settlement and opening up of areas which were practically uninhabited before the beginning of the year.

In the early part of the year an excessive rainfall was experienced throughout practically the whole Territories and in the western portion floods were experienced which in severity have not been exceeded since the opening up of the country. As a natural consequence much damage was caused to existing means of communication and a very considerable number of the larger bridges were washed out, and one or two of the larger structures seriously damaged.

The possibility of repairing the structures injured by these floods and improving the roads was materially aided by the long spell of dry weather which was experienced after midsummer, and owing to that fact we were able to close the year with practically all main lines of communication open and the larger number of the important bridges in a fit state for travel.

The bearing which the rapid opening up of new settlements throughout the west has had upon the work of the Department in the effort to provide means of communication has been referred to in previous reports, but it seems necessary to again emphasise the fact that so long as the present conditions continue, under which new settlements with their central villages are almost a matter of weekly growth, it will be a serious question how the natural means of communication between these villages and the principal market centres can be opened up with anything like the degree of rapidity which the incoming settler seems to expect from the Territorial Government.

The requests made for the completion of public works during the past year have again exceeded at least three-fold the amount of work which it was possible to do with the means available, and the result of

this falling behind, during the past year and two preceding years, in the effort to keep pace with demands, has now accumulated a mass of work which it is quite evident will seriously tax the resources of the Department to meet in the near future.

It is, of course, only reasonable to expect that immigrants who have decided to make their home in the Territories, owing to information supplied to them through reliable sources as to climatic and soil conditions, must look to some central authority, either government or municipal, when they have located on their claims, for the completion of such works as are absolutely necessary to give them access to market centres. But it may not be out of place here to again direct attention to the fact that, owing to existing conditions, the only authority which such settlers can look to for the relief of their needs is the Territorial Government, and that to provide for what can be justly classed as fair requests must of necessity, owing to the rapid development now taking place in the Territories, involve the expenditure of a large sum of money annually.

The very bountiful crop with which the country was blessed this year has had a marked effect in directing the attention of emigrants both from the United States and Great Britain to the capabilities of the west, and is sure to be followed by a larger influx of desirable settlers than we have had in the past, with consequent enlarged responsibilities, as far as the Department is concerned, in the effort to provide these settlers with what they need to enable them to become successful and contented citizens.

The total amount expended during the past year for public works was \$298,238.00, or about \$61,664.00 more than was expended during the preceding year. For the purpose of reference a schedule is again appended showing in a graphic form the expenditure by the Department since 1898.

Expenditure in 1898.....	\$129,046
“ “ 1899.....	146,403
“ “ 1900.....	175,960
“ “ 1901.....	236,574
“ “ 1902.....	298,238

It will be noted from the foregoing that since the organisation of the Department in 1898 a marked effort has been made by the Government to keep pace with the development of the country, in so far as expenditures on public works are concerned, but it is quite evident, as already mentioned, that if any effort is to be made in the near future to catch up with the arrears of work which have resulted from the inability to provide for what was recognised as actually necessary during preceding years, the expenditure for the coming year must show a much more marked increase than that noted above as the proportionate increase between the expenditures of 1900 and 1901. The details of the expenditures under the different headings comparing the totals above mentioned are given in the section of the report dealing with the Accountant's Branch. The general matter of expenditure is referred to here owing to the fact that, while that expenditure comprises a very large proportion of the amount voted to meet the needs of our “growing time,” it is quite clear, from information now on record in the Department, that to keep pace with that “growing time” large additional expenditures, as already mentioned, should, if possible, be provided for in the near future.

The system adopted in previous reports with reference to the subdivision of the subject matter of this report has again been followed for convenience of reference, and leads first to the work of the

Correspondence Branch, which is really the pulse of the work undertaken by the Department.

CORRESPONDENCE BRANCH.

Staff.....	{	1 chief clerk.
		3 clerks.
		6 stenographers and typewriters.
		1 messenger.

It will be noted from the following statement that a very marked extension has again to be reported in the volume of correspondence dealt with by the Department during the past year, and for the purpose of graphic presentation the totals of the past and preceding years are shown in schedule form as follows:

Communications received, 1901.....	29,098
“ “ 1902.....	42,251
“ sent, 1901.....	58,005
“ “ 1902.....	86,730
Irrigation Branch, 1901.....	3,392
“ “ 1902.....	3,350
<hr/>	
Total, 1901.....	90,495
“ 1902.....	132,331
Average of communications dealt with daily, 1901....	294
“ “ “ 1902....	431
Entries of cash received, 1901.....	4,053
“ “ 1902.....	9,651

The volume of correspondence dealt with during the past year as noted above shows an increase over the preceding year of 41,836 communications and the daily average of 431 letters will of itself indicate the mass of work handled by the Department, and serve to illustrate the fact already mentioned that a very large percentage of the resident population of the Territories finds it necessary from time to time to communicate with the Department relative to their needs.

I have again to point out that the volume of correspondence has proved a serious tax upon the staff, and that only by persistent hard work was it possible to deal in anything like a prompt manner with this great mass of work.

In dealing with the public there is nothing that sooner arouses hostile criticism than delays in answering letters, and while it is admitted that many people run to unnecessary letter writing, it will be realised that, in a country of such vast proportions as the Territories, and with our centralised form of government, a very large percentage of the business of the Department must necessarily be done by correspondence. To prevent unnecessary delays and endeavour to deal promptly, as far as possible, with all communications received has been the aim of the staff during the past year, and the fact that the mass of correspondence, as stated above, was handled with the staff mentioned is, I think, worthy of record.

The Coal Mines Regulations Ordinance and The Steam Boilers Ordinance which, during the past year, as in preceding years, have been administered from the Correspondence Branch are for convenience of reference dealt with under separate headings.

THE COAL MINES REGULATIONS ORDINANCE.

Outside staff..... 1 inspector.

A marked increase will be noted in the number of mines operated in the Territories during the past year, which for convenience are scheduled as follows:

SCHEDULE of Coal Mines Operated in the Territories in 1902.

NAME	LOCATION	OPERATED BY	CHARACTER OF COAL
Anthracite.....	Anthracite, Alta.....	H. W. McNeill Co., Ltd..	Anthracite
Canmore.....	Canmore, ".....	".....	Bituminous
Lethbridge.....	Lethbridge, ".....	Alberta Ry. & Coal Co..	"
North Star.....	Strathcona, ".....	Martin Bros.....	"
Humberstone.....	Edmonton, ".....	Wm. Humberstone.....	"
Clover Bar.....	Clover Bar, ".....	Daly & Lindsay.....	"
Milner.....	Edmonton, ".....	J. Milner.....	"
Steeves.....	Strathcona, ".....	Martin & King.....	"
Moret.....	Edmonton, ".....	L. Moret.....	"
Coit.....	".....	Marsh & Nibbs.....	"
Sturgeon.....	Namao, ".....	Austin & Brandt.....	"
Superior.....	Strathcona, ".....	Jas. McKernan.....	"
Christie.....	Edmonton, ".....	M. Christie.....	"
Black Diamond.....	".....	A. E. Auston.....	"
Egg Lake.....	Namao, ".....	Kelly & McPherson.....	"
White Star.....	Calgary, ".....	D. Davidson.....	"
Black Diamond.....	".....	A. D. McPherson.....	"
Knee Hill.....	".....	Hunt & Reid.....	"
Black.....	Morinville, ".....	Edward Chevigny.....	"
Gillespie.....	Medicine Hat, Assa.....	Frank Gillespie.....	"
Culley.....	".....	George Culley.....	"
Crockfords.....	".....	Crockford Bros.....	"
Hassard.....	Coalfields, ".....	Souris Coal Mining Co..	"
Roche Percee.....	".....	".....	"
Roche Percee.....	".....	".....	"
Walsh.....	".....	".....	"
Pure Lignite.....	".....	R. B. Taylor & Co.....	"
Raith.....	Edmonton, Alta.....	Souris Coal Mining Co..	"
Watson.....	Estevan, Assa.....	Wm. Humberstone.....	"
Soo.....	".....	Henry Watson.....	"
American Coal Co.....	".....	Henry Yardley.....	"
Eureka.....	Frank, Alta.....	American Coal & Coke Co..	"
Baldwin.....	Estevan, Assa.....	Eureka Coal Mining Co..	"
Bush.....	Edmonton, Alta.....	Wm. J. Baldwin.....	"
Hassard.....	".....	Bush & Sons.....	"
Russell.....	Coalfields, Assa.....	Souris Mining Co.....	"
Hawke.....	Lethbridge, Alta.....	Geo. F. Russell.....	"
Chipman Creek.....	".....	Jos. Hawke.....	"
Ambrose & Heron.....	Pincher Creek, Alta.....	McFarlane & Milne.....	"
Galbraith.....	".....	Ambrose & Heron.....	"
Eagle Mine.....	Cowley, ".....	Jas. Galbraith.....	"
Hoover.....	Edmonton.....	E. D. Martin.....	"
Lille Colliery.....	Medicine Hat, Assa.....	J. Hoover.....	"
Gouin.....	Frank, Alta.....	United Gold Fields Co..	"
Edmonton Coal Co.....	Morinville, Alta.....	O. Gouin.....	"
Gallagher & Hall.....	Edmonton, ".....	Edmonton Coal Co.....	"
Smith & Hooper.....	".....	Gallagher & Hall.....	"
Clover Bar.....	".....	Smith & Hooper.....	"
Coal Coulee.....	Clover Bar, ".....	D. Fowler.....	"
Byron Collieries.....	High River, ".....	D. E. Riley.....	"
Blackfoot Reserve.....	Frank, ".....	Byron Collieries Co., Ltd.	"
Trimble.....	Gleichen, ".....	Blackfoot Indians.....	"
Smith.....	Edmonton, ".....	J. A. Trimble & Sons.....	"
	Namao, ".....	F. Smith.....	"

The output of the above mines during the year as shown by the returns filed under the provisions of the Ordinance is as follows :

Bituminous and lignite coal.....	494,087 tons.
Anthracite coal.....	16,587 “
Total.....	510,674 tons.

The figures given in the report for 1901 were :

Bituminous and lignite coal.....	331,907 tons.
Anthracite coal.....	14,742 “
Total.....	346,649 tons.

It will be noted that the total output for the past year exceeds that of 1901 by 164,025 tons, an increase of over 47 per cent.

The important bearing which the extensive coal areas of the Territories must have upon the future development of the country is now beginning to be realised and it seems quite certain that in the immediate future this industry must of necessity show marked extension in the line of the mining of coal for domestic purposes. Doubtless the great strike in the Pennsylvania coal fields of the United States during the year, and the resulting scarcity of fuel, has done much to direct attention to the inexhaustible coal supplies which we have near at hand, and the fact that the time has now practically arrived when the West can become entirely independent of the East for their fuel supply must have a marked bearing upon the rapid settlement and development of the Territories. It is true that as yet the anthracite coal fields have not been sufficiently developed to justify the hope that fuel of that class can be provided to meet all needs, but as far as the cheaper fuels of the lignite and bituminous coal classes are concerned it is now quite evident that we have an inexhaustible supply of both fuels of this kind.

Souris District.

The area of lignite coal in the south-eastern portion of Assiniboia is now known to be practically inexhaustible and the use of that coal, owing to the improved methods of consumption in stoves, is very rapidly extending, and its use for the generation of steam has also shown a marked extension during the past year owing to the scarcity of other fuels and to the fact that experience has proved that, with proper grates and careful firing, very satisfactory results can be obtained from its use. In this connection it may be noted that a number of the larger steam grist mills in southern Manitoba, and one of the largest mills in Winnipeg, now use Souris coal altogether for the generation of steam. The Souris Coal Company, who now operate the mines previously worked by independent companies at Roche Percee and Coalfields, have extended their works so as to enable them to mine a much larger quantity of coal. The situation of their present works, however, on the banks of the Souris river is such that considerable difficulty is experienced in handling their coal, and a long up-grade haul is necessary before the coal reaches the prairie level for distribution east and west. It is probable that the

company referred to will, in the near future, find it expedient to abandon their present system of mining and adopt the system of reaching the coal by shafts sunk from the prairie level, with decreased cost of handling and material reduction in the mileage haul from the mines to the distributing centre at Estevan.

Crow's Nest Pass District.

In the Crow's Nest Pass coal fields, in the Territories, the operations of the Canadian-American Coal & Coke Co. at Frank show a marked development during the past year. That company is now putting out a large quantity of coal daily and the colliery promises to become an important one in the near future. Several other mines have been opened up in the district, but none of them have yet got beyond the development stages. Sufficient has, however, been done to clearly prove that the coal areas are of wide extent and of good quality, and there is every indication that in the near future this coal field will be one of the most extensive in the west. None of the coal so far mined has proved of first-class quality for coking, but the indications are that coal which will make good coke will be located and that the manufacture of coke will be undertaken before long.

Lethbridge.

At the Lethbridge colliery the company are still extending their operations and the demand for this coal for domestic purposes is rapidly increasing.

Canmore.

At Canmore the indications are that the development work done by the company during the past season has now put the colliery on a more satisfactory basis and a large quantity of coal has been mined in that field during the past year, all of which, however, has been utilised for railway operation.

Anthracite.

The Anthracite mine shows an increase in output over the preceding year, but the deposit on the property owned by the company would seem, from the Inspector's report, to have nearly reached the limit of output and, pending negotiations between the company and the owners of the adjoining property on which the anthracite deposits are situated, it seems probable that this mine will not show a marked increase of output in the near future.

Edmonton District.

In the Edmonton country a marked extension is noted in the opening up of small mines, but I have again to direct attention to the fact that in view of the rapid extension of settlement in the Edmonton district and through the Saskatchewan valley to the east, it seems desirable that the coal mining industry should be taken in hand by a strong financial company and developed upon more permanent and extensive lines than those followed by the small companies, who operate on hand-to-mouth basis and simply to meet local demands without any reference to the future extension of their workings.

SCHEDULE of Accidents in Coal Mines for 1902.

NAME OF MINE	CHARACTER OF ACCIDENT			TOTAL OF ACCIDENTS
	RESULTING IN DEATH	SERIOUS INJURY	SLIGHT INJURY	
Canmore.	4	1	2	7
Lethbridge.	1	3	4
Frank.	4	1	1	6
The Territories.	17

The number of fatal accidents in connection with coal mining operations during the past year as given by the above schedule shows an increase of five over the preceding year, and the total number of accidents of all kinds an increase of six. Considering the large additional quantity of coal mined during the year, and the additional number of men employed, the showing is not too bad. It is, of course, regretted that fatal accidents have to be reported, but unfortunately the experience of coal mining indicates that we must expect a certain proportion of fatalities each year and can only expect, by careful inspection of mines, to see that provision is made for the greatest degree of safety possible in their operation.

Examinations, under the provisions of the Ordinance, for mine managers, pit bosses and fire bosses were held during the year and certificates issued as noted hereunder to the gentlemen who successfully passed such examinations.

Cyrus Morris.	Frank.	Manager.
Thomas Steele.	"	Pit Boss.
Thomas Corkill.	"	"
Evan Jones	Estevan	Fire Boss.
John Anderson.	Canmore.	"
Charles Phillips.	Frank.	"

Two candidates who wrote upon the examination for fire boss certificate failed to pass.

The usual schedule is appended of the certificates of competency now held under The Coal Mines Regulations Ordinance.

Managers' Certificates.

Dan Evans.	Michel, B.C.
W. D. L. Hardie.	Lethbridge.
James J. Morris.	Canmore.
John Little.	Coalfields.
Wm. Hamilton.	"
O. E. S. Whiteside	Anthracite.
Frank B. Smith.	Calgary.
Edwin P. White.	Crow's Nest, B.C.
James Hargreaves.	Fernie, B.C.
Thos. R. Stockett, Jr.	"
Robinson Pearson.	"
John B. Wyllie.	Frank.
Cyrus Morris.	"

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Pit Boss Certificates.

Gus. Ostheidt	Anthracite.
John Musgrove.....	Canmore.
Charles Emmerson.....	"
Alfred Davis.....	Lethbridge.
J. C. Livingstone	"
Robt. Livingstone.....	"
Hugh Scott.....	"
T. H. Williams.....	Canmore.
Arch. Waite.....	Estevan.
Thcs. Steele.....	Frank.
Thos. Corkill.....	"

Fire Boss Certificates.

W. E. Watkins.....	Anthracite.
J. W. Watkins.....	Canmore.
John Wilson	"
Wm. Cowan.....	"
J. J. McKay.....	Lethbridge.
Robert Scott.....	"
Robert Livingstone	"
Hugh Scott.....	"
Wm. Musgrove.....	Canmore.
Wm. Taylor.....	Lethbridge.
Arch. Waite.....	Estevan.
Evan Jones.....	"
John Anderson.....	Canmore.
Charles Phillips.....	Frank.
Cory Weatherby.....	Fernie, B.C.

The annual report of Mr. F. B. Smith, B.Sc., Inspector of Coal Mines, is appended.

CALGARY, 31st December, 1902.

To the Deputy Commissioner,
Public Works Department,
Regina, Assa.

SIR,—In compliance with your instructions I have the honour, as Inspector of Coal Mines, to submit to you the following report on the coal mines of the North-West Territories for the year ending the 31st December, 1902.

The mines on the list as being in operation, or having been in operation, within the past few years now number seventy-one (71) and no doubt this does not include them all, as in outlying districts there are small mines being worked, supplying the local demand, of which there is no record. The enormous area of the three districts Assiniboia, Saskatchewan and Alberta, which comprise the North-West Territories,

makes it a difficult matter to locate every small mine being opened for the benefit of the settler, but if those operating such would notify the Department it would greatly simplify matters. The largest coal producers of the 71 mines in operation are:

The Alberta Railway & Coal Co., Lethbridge, Alta., No. 3 shaft.

The H. W. McNeill Co., Ltd., Canmore, Alta., No. 3 incline slope.

The H. W. McNeill Co., Anthracite, Alta., No. 1 incline slope.

Souris Coal Mining Co., Ltd., Coalfields, Assa., No. 1 and 2 adit levels and No. 1 Roche Percee mine.

The Canadian-American Coal and Coke Co., Ltd., Frank, Alta., No. 1 adit level.

The system of mining at Lethbridge is still continued as in the detailed report of 1901, and the ventilation, although forced through the workings for many miles, is sufficiently adequate for the number of men, boys and horses employed. The workings are now being pushed forward to No. 4 shaft which was sunk some years ago ahead of development. When connection is made with this shaft a large portion of the return airway will be cut off giving increased ventilation for the same power used and affording also another entrance and exit from the extreme outer workings. This mine had been for more than twelve months previous to August, 1902, free from any inflammable gas, but about that time, in one of the leading places, gas was discovered, and immediately after finding the gas the management again placed extra fire bosses on the night shift to guard against any probable accident, although the quantity discovered was very small and at the present date has again entirely disappeared. The small quantity of gas usually encountered in this mine is due to slight faulting and does not seemingly come from the vein being worked but from a stratum above and only lasts for a short period until the advanced workings are clear of the faulting.

The mine has been working steadily for the greater part of the year and during the last three months it has been impossible to procure the requisite number of freight cars to supply the orders on hand.

The Canmore mine, operated by the H. W. McNeill Co., still keeps up a steady output of about 400 tons per day mine run, the whole product being used by the Canadian Pacific Railway Company. The workings in this mine have been extended within the past year into Nos. 2 and 5 seams which were practically abandoned for some time, and seams 1, 3 and 4 have all been tapped at a lower level by an underground slope extending about 1,500 feet on the half pitch of the seam. During the year considerable anxiety was caused the management by gas outbursts due to the proximity of a fault on the line of the slope; also on account of the increase in cover and closer proximity to the mountains. This difficulty was successfully overcome by keeping bore levels straight ahead and on the flanks of the working places. Still, with these precautions a fatal accident occurred, the men being too slow to take the warning given by the crackling of the coal. Bore holes ahead and the widening of the rooms is the most approved method of preventing accidents from sudden outbursts of gas, as the increased width gives more scope for the compressed pocket of gas to act on, giving warning sooner, and the bore holes ahead and on the flanks will be very liable to tap any gas pocket, releasing the pressure gradually. Precautions were also taken in this district of the mine by not only having the safety lamps locked but also sealed by a lead seal so that the miners could not in any way

tamper with the light. A periodical search of the miners is also made at this mine for any matches, pipes or tobacco, and if anything of that nature is found on any person, he is immediately discharged. It might be well that when any prohibited article is found on a miner the inspector should be notified and a prosecution take place, which would have a salutary effect on others. In the general instructions No. 9, special rules adopted at this mine and approved of by the Commissioner, it is expressly stated that "No person shall have in his possession when in or about the mine any matches or smoking material of any description." No. 1 Anthracite mine, operated by the same company, has been partly under a cloud for the past year and, owing to negotiations between the operating company and the owners of the adjoining property not having been completed to the satisfaction of both parties, the output of this mine has been largely curtailed. Development work has not been extensive and the smaller seams have been abandoned altogether for the present. Work has been carried on mainly by drawing alternate pillars so as not in any way to injure the mine permanently, but with the idea of being able to extract all the pillars within the next year or so provided that no settlement can be arranged for working the coal lands adjoining. There are about thirty men working in this mine all told, and the daily output is about 80 tons.

The Souris Coal Mining Company, Ltd., Coalfields, Assa., are still continuing the work in No. 1 and 2 adit levels and also at the mine at Roche Percee. In the beginning of the year this company had rather a serious drawback by the outbreak of smallpox in the camp. At that season of the year it was disastrous to their yearly returns as the winter months form their busiest time and, instead of having an output of 600 tons per day, their average was for a considerable period 50 per cent. less. The development work has been rapidly pushed in No. 2 mine, another coal punching machine having been placed at work and the entries now in advance with rooms started off them capable of producing at least 400 tons per day from this mine alone. The development work at No. 1 and Roche Percee mine has not increased to the same extent, but within the last few months of the year they have been kept going to their full capacity.

The strike in the anthracite region of Pennsylvania has been in a sense a blessing to our coal industry in the North-West, as the consumer now understands he has an article at his own door which, if not equal in quality, is certainly an excellent heat producer and, with a little more attention, can give the same effect as Pennsylvania anthracite and at a less cost. The prospects, therefore, for these mines are now brighter than ever they were and a steady output assured for the operator and miner.

The Frank mine operated by the Canadian-American Coal and Coke Co., Frank, Alta., is one of the most recently developed mines and at the present date has a daily average output of 700 tons. The pitch of the seam is a most abnormal condition for this part of the country, being vertical. For this reason it is an experiment to most miners and mining men of the country. To the peculiar condition of the seam may also be assigned several of the accidents to the miners, very few of them having ever worked under the same circumstances in their mining experience. The main tunnel has now been driven over one mile in length and a parallel or monkey gangway, 40 feet above, the same distance, with upraises in between to carry the ventilation. From this upper gangway

the treasts or long wall system is opened out and only the surplus coal removed by chutes. The rooms are worked to the outcrop and the coal lying in them is then withdrawn. The present large output is due to the energy of the company and the ready market for steam coal in the country. Shortly this company will be able to supply double the quantity of the present production on account of the outer rooms being worked to the surface and the coal lying in the rooms can be withdrawn, the output practically only being curtailed by the number of cars that can be handled in the mine and at the tipple.

Accidents.

It is unfortunate in the past year that we have to record so many fatal accidents and a number of miners slightly injured in the pursuance of their calling. It would probably be to the advantage of the employer and employee if the inspector was informed by wire, directly an accident takes place, whether fatal or injury only, so that we could co-operate with the company to try and remedy the cause if such exists. The fatal accidents of which I know number seven (7) and I visited the collieries immediately after six of them. The first one to be recorded was at the Frank mine, but at the time I was not notified of the accident and consequently did not visit the mine for some time after. The next accident was at Cannore mine on the 29th of March when Nando Pinanonti lost his life by a fall of rock in No. 3 seam. The treast was started in troubled ground and he was mining the coal under a bad rock which he had propped up, but loosening the coal at the back end of it the rock surged over on him, death being instantaneous.

Again a fatal accident had to be recorded in the Cannore mine, in which two brothers, John and Jacob Kovezynski, lost their lives by an outburst of gas in the new underground slope No. 3 mine. From the position in which the men were found it could be surmised that, after the coal gave warning, they lingered too long to get their dinner buckets, picks, etc., and were overcome by the great outburst of gas before reaching the gangway.

At Frank mine on the 28th September a regrettable accident happened by which two men, D. Haines and W. Clarke, lost their lives and a third, D. Davies, so overcome that it was several weeks before he was again able to work. This mine had been practically free from gas since the commencement of opening until August, when gas was discovered in one of the upraises. After that all men working in the upraises where gas was suspected were supplied with a safety lamp. In this case a safety lamp was used but naked lights were also carried on their heads, and the gas being found to a greater extent than expected, an explosion took place from the ignition of the gas by the naked light. In consequence two of the men present succumbed, the third man only being revived after hard work by medical aid. The last fatal accident to be recorded occurred at Frank mine on the 2nd of December when an experienced miner, Robert Belshaw, lost his life by a fall of rock and coal from the hanging wall. He had charge of the treast in which he was working, and in the act of taking down some coal a large fall came from the hanging wall and smothered him before he could be recovered.

In pursuance of this question fatal and non-fatal I have several times spoken to the management of different collieries with regard to

having their medical practitioner start ambulances for first aid to the injured. I am fully convinced that probably two lives at least of the fatal accidents recorded last year might have been saved had some one of the officials or miners close at hand been fully competent to render first aid. It is impossible to overestimate the value of first aid, and this matter, if recommended by the Government and taken up by the management of the several collieries, might prevent many hours of suffering and probably the loss of a limb or even a life by skilful handling immediately an accident happens and before medical aid could arrive at the scene. The hearty co-operation of the employer with the employed in first instruction aid would earn many blessings from those who in their daily occupation are liable to all classes of accidents.

Further with regard to this subject, I have many times in the course of my inspection in the mines spoken to the men with regard to rule 31, section 39, which provides for the inspection of the mine by a committee of two practical working miners appointed for the purpose by persons employed in the mine. The men at present do not avail themselves to any considerable extent under the provisions of this rule and I regard this as a grave error on their part, as if it was carried out it would tend to keep everything as near right as possible and often prevent the carelessness and negligence especially of the minor officials. This negligence is often whispered among the workmen but never any direct complaint being made. A book is kept at all collieries for the purpose of this committee recording any complaints, and if the matter is not attended to serious consequences would affect the management when not complied with. If this examination was carried out regularly by the miners it would give the employers a sense of security in the mine and management at a very small cost. These men might also be appointed, when notice has been given the management, to visit immediately the scene of any accident and also record a report of the same in the book kept at the mine for their use.

When any fatal accident occurs it would be well if the inspector was notified by wire at the same time as the coroner, and he could immediately visit the colliery and be present at the coroner's inquest to look after the interests of all parties concerned.

Work of Inspection.

The work of inspection was carried on regularly throughout the year. The number of mines on the list (71) is an extensive undertaking to inspect over such a large area as the North-West Territories, but fortunately the greater portion of them are small and lie in groups, so that two or three may be visited in one day. Within the past two years there has been a marked improvement in the working of these smaller mines. The owners or lessees now begin to see the advantage of adhering to the sections in the Ordinance relating specially to the safety of their men, and keeping plans of their workings, enhancing the value of their property, where before no records were kept. The larger mines at Coalfields, Assa., Lethbridge, Frank, Canmore and Anthracite naturally have been visited much oftener than the smaller mines, each of them being inspected at least four times in the year, and whenever any accident or complaint of any kind, anonymous or otherwise, was made an investigation followed, resulting eventually to the benefit of the operator and

the employed. Regularly there have been recommendations made by the Inspector through the Department to the colliery operators for improvements in their system of working and ventilation. These I must add have been faithfully carried out, especially at the Frank mine where such large operations were in the experimental stage.

Examinations.

Several examinations were held throughout the year for certificates as mine manager, pit boss and fire boss. The first of these was held at Frank in February, when one candidate presented himself for mine manager's certificate, and he having satisfied the board of examiners a certificate was granted.

Another examination was held at Coalfields, Assa., at which one candidate presented himself for pit boss certificate, but the candidate failed to satisfy the board as to his ability to hold such certificate.

An examination was held at Canmore, one candidate presenting himself for fire boss certificate but was unsuccessful.

In December an examination was held at Frank, Alta., at which two candidates presented themselves for pit boss certificates, and satisfied the board of their qualifications; accordingly certificates were granted them. Two others presented themselves for fire boss certificates, one being successful and the other failing to satisfy the board of examiners.

One pit boss certificate was issued to Mr. Cory Wetherby, of Fernie, he having given proof that he had passed a duly authorised board of examiners in British Columbia, granting such certificates.

Coal Mining Prospects.

The enormous influx of settlers into the Territories for the past year is certainly directing capital towards our inexhaustible coal fields. The consumption of coal by the settlers alone is a comparatively small item, but the settlement of a country means increased traffic, increase of industries in all localities and an increased output of coal to supply the demand. Along the line of Crow's Nest Railway, or particularly in the Blairmore district, the extension of coal mining has been phenomenal. One mine alone, with a shipping capacity of barely 50 tons per day at the beginning of the year, increased its production until it nearly reached four figures at the end of 1902. Another branch railway has been built to the south of the Crow's Nest line tapping a new colliery which is also a steady producer, with a plant proposed that will equal any colliery in the country. To the north of the railway also a wagon road has been built and a company formed to open up a colliery in the spring, with exceedingly good prospects. Some work has been done on the other properties in the district but whether there will be room for the outfit of all at present depends on the other industries established in the country. At Lethbridge a new outlet has been made to the United States by the standardising of the Canada and Great Falls Railway, which a reduction in the cost of hauling coal into the States and therefore more able to compete in their market.

The coal at Medicine Hat has been worked but little in the past year, on account of the introduction of natural gas into the town for domestic use. This has been very successfully carried out, although I

consider that there is always room for coal where heat and steam are required.

The mines at Estevan and Coalfields have been kept busy for the latter part of the year, not on account of the increased settlement alone, but that the coal is now recognised as a fuel that will compete successfully with most other fuels in the market where economy is considered. The largest operators there are now looking forward to the increase the coal mining machinery for a production of at least 1,200 tons per day to fill the demands of the next season.

The mine at Canmore has regained a new lease of life by opening up to the west of No. 3 slope sinking to a greater depth on the main seam and cross-cutting the other veins at this lower level. The prospects lying to the east of the present mine are very hopeful, a tunnel being driven for a few hundred feet on one vein, showing an area of coal that will last for many years.

In the Edmonton district the stir in railway circles has given an impetus to the coal prospects that seemed distant a year ago. The number of mines working in a small radius would seem to be beyond the demands of the local trade, but it is not so. It would be much better, however, if these small interests were all consolidated and a company organised to work the coal fields in a more systematic manner and preserve the valuable surface from being damaged for agricultural purposes.

The prospects of opening up the coal near the foothills on the Red Deer river, where there is a fair quality of anthracite, is considered very good as capital has now been invested in the matter. It is also probable that the fine domestic coal of the Knee Hills may be opened up in the near future, as application is being made this year for a renewal of the railway charter for the line from Calgary.

In conclusion it is pleasing to note the activity in all quarters of the Territories and it is assured that our coal industry will be one of the largest revenues on which the Territories can depend in the future.

I have the honour to be, Sir,

Your obedient servant,

FRANK B. SMITH, B.Sc.,

Inspector of Coal Mines.

THE STEAM BOILERS ORDINANCE.

Owing to the marked increase in the number of steam boilers operated during the year it was found necessary to appoint an additional inspector and Mr. William Mayhew, of Broadview, was engaged to fill the position. The names and addresses of the inspectors now employed in connection with the inspection of steam boilers throughout the Territories are as follows:

Mr. W. M. Carment.....	Yorkton.
Mr. Wm. Waller.....	Whitewood.
Mr. Jos. Buxton.....	Calgary.
Mr. Wm. Mayhew.....	Broadview.

The usual schedule showing in a graphic form the work performed on steam boiler inspection the past year is appended:

Number of steam boilers inspected.....	803
Number of examinations of engineers held.....	114
Number of first class engineer's certificates issued.....	1
Number of second class engineer's certificates issued.....	22
Number of third class engineer's certificates issued.....	116
Number of provisional engineer's certificates issued.....	332
Number of permits for operation of boilers issued.....	31
Fees collected:	
For inspection of boilers.....	\$3,890 00
For examination of engineers and final certificates issued in lieu of certificates held	432 00
For provisional certificates.....	993 00
For permits for operation of boilers.....	93 00
	<hr/>
	\$5,408 00

The foregoing schedule shows an increase in the number of boilers inspected over the preceding year of 232, and there is also a marked increase in the number of third class engineer's certificates and provisional engineer's certificates issued.

The revenue collected in connection with administration of this Ordinance also shows a marked increase over that of the preceding year. The large increase in the number of boilers inspected and the work performed generally by the inspectors was due to the very bountiful harvest of the past season, and it now seems quite certain that this branch of departmental work will show an annual increase for many years, and that before long the staff of inspectors will have to be largely augmented to enable them to keep up with the work.

It is gratifying to know that although such a large number of steam threshing outfits were employed during the season no serious accidents occurred, and it is quite evident that the work of inspection done by our inspectors is having a marked effect from the standpoint of the operation of steam threshing outfits.

The administration of The Steam Boilers Ordinance during the year has indicated that at the next session of the Legislative Assembly it is desirable that some minor amendments should be provided to clear up one or two doubtful points and to make the Ordinance more clearly understood by the public as well as our inspectors. One point which should be dealt with by amendment of the existing law is the matter of the date to be endorsed upon certificates of inspection. The custom has been in the past that when an inspector inspects a boiler for the first time he issues a certificate of that date good for one year. It is, of course, impossible for our inspectors to reach every boiler for subsequent inspection upon exactly the same date as the inspection of the previous year, and if his visit is made at a time considerably prior to the date on the certificate, owners have objected to paying the fee on the ground that the existing certificate had not expired. It would be well in amending the Ordinance that provision should be made to enable the inspectors to complete their inspections at any time during the year, on the understanding that the certificate issued would be given a date which would not cause any overlapping in the expiry of a full year between the dates on which certificates lapse. In amending the Ordinance it will also be necessary to clear up a doubt which now exists as to the issue of a second

provisional certificate. The intention, no doubt, in the original Ordinance was to provide that not more than one provisional certificate should be issued to any one man, but as the language of the existing law is not very precise on this point, and in view of the large number of applications received for second provisional certificates, it is desirable that the doubt should be cleared up.

The usual reports from the inspectors of steam boilers, and the schedule of those holding certificates of competency under the Ordinance, are appended hereto.

YORKTON, *December 31st, 1902.*

J. S. DENNIS, Esq.,

Deputy Commissioner of Public Works,
Regina.

SIR,—I have the honour to submit my annual report as Inspector of Steam Boilers for the year 1902.

The number of boilers inspected by me during the past season is 209. Of this number 36 came into the district this year. The number inspected would have been considerably greater had I not met with an accident which laid me up for several weeks during the busiest part of the year.

The boilers inspected were of the following classes: Stationary boilers 32, portable boilers 102, traction 75. They consisted of the following types: Locomotive firebox 103, return tubular 101, and upright 5. A large majority of the new boilers are of the locomotive type which are made to stand a higher pressure than the return tubular type, and are more compact and not so heavy.

The condition of the boilers was as follows: Good or fairly good, 156; fair or very fair, 48; poor, 5.

Repairs were ordered in 121 cases, many of which were of trifling matters. Of the boilers in poor condition one was condemned, and in the other cases extensive repairs were ordered. A few of the older boilers inspected last season have been put permanently out of use by the owners without compulsion. This is as it should be.

The boilers inspected this season were used for the following purposes: Operating grain elevators 16, flour mills 6, sash and door factories 3, creameries 4, shingle mill 1, foundry 1, mineral water factory 1, for agricultural purposes 177.

The following new industries run by steam power have come into operation in my district since last season: 1 flour mill, 1 sash and door factory, 1 shingle mill, 1 creamery, and 1 elevator.

A large number of grain elevators have been built, but most of these obtain power from gasoline engines.

Owing to a large number of new boilers coming into the district, Mr. Wm. Mayhew, of Broadview, was appointed to assist me and started work about the end of August. Since that date 109 boilers have been inspected by him, of which number 61 came into the district this season. This makes a total of 318 boilers inspected in the eastern district, of which number 97 came in this season.

The opposition to inspection heretofore experienced by me in some quarters has now largely died out, or at least exists only in a passive

form. There is a great deal of carelessness shown as regards filling the boiler with water and making preparations for inspection. In very many cases no preparation is made until after the arrival of the inspector, which causes a great loss of time.

I have examined 49 candidates for engineer's final certificates, all of whom succeeded in passing. Of this number 6 were foreigners who were unable to write English and they were examined orally and their answers to the questions taken down by me in accordance with the regulations passed for the examination of foreigners.

There has been the usual scarcity of qualified engineers during the past season, and a number of applications were made to me for permits of which, however, I only granted 5. The present system of granting provisional certificates, while no doubt it has served a useful purpose in the past, is not altogether satisfactory lending itself too easily to the perpetration of fraud and the obtaining of certificates by men who are not qualified to take charge of an engine and boiler. I would therefore recommend that provisional certificates be done away with altogether and that a new class of certificates be issued to be known as "Limited or Temporary" certificates, and that these certificates be good for three months and limit the holder to the charge of a certain specified boiler and engine, and that these certificates be granted by the Inspector, or on his recommendation after proof by the applicant of one year's practical experience and an oral examination sufficient to satisfy the Inspector that the applicant is qualified to have charge of the boiler and engine specified. I would also recommend that in the examinations for final engineer's certificates the number of written questions be largely reduced, and the candidate be taken before a boiler and engine and be required to demonstrate his knowledge of the names and use of the different parts and fittings, showing how he would handle the same, and how act in emergencies. This would do away with all ground for complaint from employers and others that men have passed their examination and obtained certificates who, when it came to the practical work of handling an engine, were found to be inefficient.

There have been no casualties reported to me during the past year, but it is quite probable there may have been some minor accidents which have not been reported, probably through ignorance that section 22 of The Steam Boilers Ordinance requires that the nearest inspector be at once notified of any accident or casualty and that the owner neglecting to do so is liable to a penalty.

The following is a tabular statement of the season's work:

Total number of boilers inspected by me in 1902....	209
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Types.

Return tabular.....	101	
Locomotive firebox.....	103	
Upright sectional.....	3	
Upright tubular.....	2	
	<hr/>	209

Classes.

Stationary boilers.....	32	
Portable boilers.....	102	
Traction boilers.....	75	
	<hr/>	209

Condition.

Good, or fairly good.....	156	
Fair, or very fair.....	48	
Poor.....	5	
		— 209

Number of boilers condemned.....	1
Number requiring repair.....	121
Number of engineers examined.....	49
Number of permits issued.....	5

I have the honour to be, Sir,

Your obedient servant,

W. M. CARMENT,

Inspector.

WHITEWOOD, ASSA., *December 31st, 1902.*

J. S. DENNIS, ESQ.,

Deputy Commissioner of Public Works,
Regina.

SIR,—I have the honour to submit my annual report as Inspector of Steam Boilers for 1902, as provided for by section 19 of The Steam Boilers Ordinance of the North-West Territories.

On March 5th I received instructions from the Department to proceed to Battleford and from there to Onion Lake. On my return I received instructions from the Deputy Commissioner to superintend some alterations on the Battleford steam ferry and to do the necessary repairs and fit her for the season's work. This was done, and I operated her to see that everything was working right.

The ferry station at this point, owing to the movable sand bars, makes it difficult to navigate and also to land the people without damage to the boat. It will be necessary to replace stern post and rudder posts before the boat can be put on her station in 1903, as I could not get sufficient timber of the right kind to finish them with at the time. It is only common spruce that is in at present.

Having completed the ferry and inspected the boilers in the Battleford district, I left on May 2nd for the Prince Albert branch to inspect the stationary boilers in that district, after which I returned to Regina.

The travelling this season was very trying owing to the bad condition of the roads in many districts. It was almost impossible to travel in the month of June. These drawbacks, together with the unusually wet weather, put my work back fully a month this season.

I have inspected 228 boilers this year, the following being the different classes and types:

	Condition good.	Fair.
Stationary tubular.....	27	8
“ upright.....	2	
“ return tubular.....	1	
“ locomotive firebox	1	
Locomotive fire box traction.....	86	
“ “ portable....	24	5
“ “ with return tubes, portable..	1	
“ “ “ “ “ traction..	9	

	Condition good.	Fair.
Return tubular traction.....	35	11
“ “ “		one bad.
“ “ portable.....	6	6
Town fire engine, portable.....	1	
Upright portable.....	2	2
Total.....		228

I have examined 29 engineers for their final certificates. The following is the result:—First class, failed 3; second class; third class, 28.

Permits issued—1.

I beg to offer a suggestion with regard to examination. Our present system of advertising as to when and where an examination is to be held is rather inadequate. Putting a notice in the post office, not one out of 20 engineers ever sees it. I would suggest that the Department print a notice paper and send one to every holder of a provisional certificate, and also put a small advertisement in the local paper, so that those who have a second or third would have an opportunity of writing for a higher grade.

Judging from the number of provisional certificates issued this year in my district there will be many to write for their final certificates next year.

It is gratifying to report very little friction, together with no serious accidents in my district.

I have the honour to be, Sir,

Your obedient servant,

WM. WALLER,

Inspector of Steam Boilers.

BROADVIEW, ASSA., *December 31st, 1902.*

J. S. DENNIS, Esq.,

Deputy Commissioner of Public Works,

Regina.

SIR,—I beg to submit a report of the steam boilers inspected by me since my appointment in July, 1902, at which time I was engaged to assist W. M. Carment in the eastern division of Assiniboia. Some delay was caused at first, waiting for the necessary tools to work with.

The number of boilers inspected is 109, which may be classed as follows:

Return tube portable.....	16
Return tube traction.....	13
Locomotive portable.....	27
Locomotive traction	42
Stationary tubular	9
Stationary locomotive.....	1
Vertical traction	1

Ninety-four of these boilers were in good condition and 14 were only fair, that is, they were damaged either by wear or improperly cared for. One was a new boiler with only two hand holes, and they were both in the water head, which was not enough to allow the boiler to be cleaned out

properly. I found two boilers carrying more steam than is allowed by the Ordinance, section 24.

I have also to report that I inspected 61 boilers that had not been inspected before, which means an increase to the district. This number was made up of 49 new boilers and 12 that had been in use before they came to the Territories. In 67 cases I ordered the owners to have their safety valves made so they could be sealed according to the Ordinance, section 21.

Number of candidates examined for third class engineer's certificates, two.

I have no accidents to report in connection with the operation of steam boilers in this district.

I am pleased to say that the owners of steam boilers are beginning to appreciate the advantage it is to them to have their boilers inspected, because they can work them with more confidence and less anxiety, especially after they have been used a few years. Some, of course, cannot see the good of it, but I find the more knowledge the owner has of his boiler the more he is satisfied with the step the Department has taken. I have been told by many of the farmers that having the boilers inspected and qualified engineers to operate them was one of the best things that could have been done for the general public.

I have the honour to be, Sir,

Your obedient servant,

WM. MAYHEW,

Asst. Inspector.

CALGARY, ALTA., *December 31st, 1902.*

J. S. DENNIS, ESQ.,

Deputy Commissioner of Public Works,

Regina.

SIR,—I have the honour to submit my annual report for the year 1902, as Inspector of Steam Boilers, in accordance with the provisions of The Steam Boilers Ordinance, 1901.

During the past year I have inspected in all 257 boilers. Of this number ten came into the district this fall and were immediately operated. There are several other new boilers being put into position to be operated within a short time.

Description of Boilers Inspected.

Locomotive firebox.....	79
Returned firebox.....	10
Horizontal tubular.....	63
Returned tubular.....	10
Returned flue.....	7
Upright tubular.....	30
Upright sectional.....	8
Lancashire.....	1
Total.....	257

Condition of Boilers Inspected.

Good.....	218
Very fair.....	29
Fair.....	10

The inspection of ten boilers not in use was postponed.

During the past year I have examined 30 holders of provisional certificates, and have issued final certificates as follows :—First class, 0 ; second class, 7 ; third class, 23.

The following shows the number of boilers inspected during 1901 and 1902 :

1901.....	135
1902.....	257

The number of boilers in my district is rapidly increasing, and the figures for 1903 will, in all probability, show an increase of nearly 100 per cent.

There have been no casualties or accidents with steam boilers in my district as far as I can ascertain after careful inquiry.

I have the honour to be, Sir,

Your obedient servant,

JOS. BUXTON,

Inspector of Steam Boilers.

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.

NAME	ADDRESS	DATE OF ISSUE
<i>First Class.</i>		
McNab, Franklin	Fort Qu'Appelle	28 March, 1899
Cross, William	Calgary.. ..	"
Liston, Robert F	Battleford	29 March, 1899
Holden, William John.....	Indian Head.. ..	28 March, 1899
Turgeon, Cleophas	Edmonton.	"
Mayhew, William.....	Broadview.....	"
Cook, George.....	Regina	"
Kirkland, Thomas	Yorkton.....	"
Carment, Wm. Maxwell.....	Kamsack	"
Taylor, George R.....	Strathcona	"
Evans, Dan	Michel, B.C.....	"
Collison, George.....	Coalfields.....	"
Scott, John	Lethbridge	"
Brissette, Narcisse.....	Morinville.. ..	"
Bell, John	Prince Albert.....	"
Smith, Percy Lewis.....	Prince Albert.....	4 April, 1899
Smith, John McKenzie	Prince Albert.....	"
Sutherland, James A	Broadview.....	29 September, 1899
Fraser, David.....	Strathcona	9 October, 1899
McNaughton, Peter.....	Edmonton.....	"
Codd, Edward F.....	Calgary.....	5 June, 1900
Niven, Robert.....	Lethbridge	28 July, 1900
Archibald, Harry P.....	Lethbridge	15 August, 1900
Jackson, John A.....	Strathcona	23 October, 1900
Waller, William.....	Whitewood.....	6 November, 1900
Roop, Warren E.....	Moose Jaw	15 November, 1900
Hicks, Robert.....	Rossetti.....	24 December, 1900
Fisher, Frank D.....	Fleming.....	11 April, 1901
Wilcox, W. C.....	Moosomin.....	25 April, 1901
Yates, David.....	Banff.....	5 July, 1901
Caldwell, Marcus D.....	Qu'Appelle Station.....	18 July, 1901
Turner, Ornelo H	Calgary.....	30 July, 1901
Buxton, Joseph.....	Calgary.....	29 August, 1901
Heist, Wm. E.....	Edmonton.....	18 December, 1901
Holden, Richard W.....	Hednesford.....	28 August, 1902

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Second Class.</i>		
Cape, Edmond G. M.	Lethbridge	30 June, 1899
Walker, J. B.	Lethbridge	"
McKay, Daniel	Lethbridge	"
Reed, W. R.	Lethbridge	"
Parcels, Timothy P.	Red Deer	4 September, 1899
Bawtinheimer, George H.	Red Deer	"
Stapley, Tobias B.	Edmonton	"
Ffolliott, L. H.	Grenfell	29 September, 1899
Amas, Frank	Qu'Appelle Station	"
Green, George	Moose Jaw	"
Payzant, Ernest M.	Edmonton	9 October, 1899
Hubbard, Sydney T.	Edmonton	"
Jones, Frederick W.	Strathcona	"
Clark, W. Harold	Edmonton	"
Pratt, George	Edmonton	"
Schatz, Wm. H.	Strathcona	"
Watson, Ernest P.	Strathcona	"
Hennigar, Edward J.	Edmonton	"
Thompson, R. D.	Wolseley	13 November, 1899
Macey, Charles R.	Oxbow	15 November, 1899
Cumming, Thos. C.	Whitewood	"
Hamill, Thos. T.	Whitewood	"
Collopy, Alexander	Alameda	"
More, Robert	Brendburg	"
Brayne, Joseph	Calgary	1 December, 1899
Shaw, Maltman W. S.	Midnapore	"
Evans, Harry W.	Anthracite	13 February, 1900
Turner, Ornelo H.	Calgary	"
Richards, Henry John	Canmore	"
Toreson, Thomas	Wetaskiwin	7 March, 1900
Biery, Charles	Strathcona	"
Haines, Alfred H.	Edmonton	"
Keenan, James S.	Moosomin	21 March, 1900
Kerr, William	Lethbridge	23 March, 1900
Moran, Austin	Lethbridge	"
Conn, David	Lethbridge	"
Nimmons, Robert	Lethbridge	"
Stafford, George	Lethbridge	"
Donaldson, Maxwell	Lethbridge	"
Hillis, Henry	Medicine Hat	"
Steven, James H.	Calgary	17 April, 1900
Osment, Walter J.	Indian Head	25 April, 1900
Grant, Geo.	Wolseley	"
Walters, Bertrand	Grenfell	"
Glow, Charles	Ellisboro	"
Shingler, Charles	Grenfell	"
Fitzgerald, Walter G.	Belle Prairie	"
Winter, Robert S.	Wapella	"
Chalmers, Walter N.	Edmonton	28 May, 1900
Pearce, Abram	Edmonton	"
Verey, George W.	Prince Albert	"
Shannon, John W.	Prince Albert	"
Barley, George T.	Prince Albert	"
McBeth, William M.	Prince Albert	"
Goodfellow, Willard R.	Prince Albert	"
Brydges, Alonzo H.	Moosomin	30 May, 1900
Ritchie, William J.	Canmore	5 June, 1900
McGee, Thomas	Whitefish Lake	14 June, 1900
Kidd, Frederick	Calgary	"
Workman, Walter R.	Oxbow	19 July, 1900

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Second Class.—Continued.</i>		
Bierworth, Ernest.....	Carnduff	19 July, 1900
Dickson, William.....	Oxbow	"
Collopy, Thomas	Alameda	"
Humphrys, William.....	Cannington Manor.....	"
McGuirl, John.....	Moosomin	"
Wood, Charles E. D.....	Macleod	28 July, 1900
McDougall, John.....	Regina	"
Burke, Fred	Gainsborough	7 August, 1900
Keith, John.....	Fitzmaurice	24 August, 1900
White, James.....	Canmore	5 September, 1900
Lyon, William.....	Moffatt.....	"
Holden, Albert.....	Indian Head.....	"
Pajot, Jacques.....	Duck Lake.....	29 September, 1900
Rankin, Thomas H.....	Banff.....	"
Rigby, William.....	Tregarva	"
Hicklin, John W.....	Calgary	"
McEwen, Duncan.....	Regina	"
Donald, J.....	Moosomin	"
Goodman, J.....	Moosomin	"
Gibson, Fred A.....	Moosomin	"
Hoyer, Richard.....	Hednesford.....	"
Hiscox, Thomas S.....	Regina	"
Abbey, Oliver A.....	Moose Jaw.....	"
Nesbitt, John.....	Moose Jaw.....	"
Blatchford, K. A.....	Edmonton.....	23 October, 1900
Boyes, Henry.....	Indian Head.....	30 October, 1900
Eddy, Alexander.....	Medicine Hat.....	5 November, 1900
Gamble, Alva H.....	Moose Jaw.....	15 November, 1900
Abbott, James L.....	Moosomin	"
Neufeldt, Peter P.....	Rosthern	20 November, 1900
Dyke, Abraham.....	Waldheim.....	"
Wiebe, William R.....	Rosthern	"
Blair, Andrew.....	Lumsden	23 November, 1900
Tomkins, Peter.....	Whitefish Lake.....	27 November, 1900
Green, Frederick W.....	Moose Jaw.....	13 December, 1900
Stephenson, J. W.....	Moose Jaw.....	"
White, William J.....	Moose Jaw.....	"
Laidlaw, Robert.....	Grenfell	24 December, 1900
Shirkie, Andrew S.....	Grenfell	"
Brown, John E.....	Spy Hill.....	"
Dimmick, W. J.....	Fleming	"
Blain, J. W.....	Strathcona	31 December, 1900
Ford, Wm. H.....	Wideawake.....	24 January, 1901
Anderson, C. J. B.....	Calgary.....	7 February, 1901
Gale, Ernest A.....	Calgary.....	"
Grieve, David.....	Calgary.....	"
Stagg, George.....	Calgary.....	"
Steven, Alfred E.....	Calgary.....	"
Kowalezyck, Antoine.....	St. Paul des Metis.....	16 February, 1901
Cullen, James E.....	Calgary.....	21 February, 1901
Shelley, Henry James.....	Calgary.....	12 March, 1901
Hunt, Arthur.....	Wapella.....	11 April, 1901
Morden, Philip A.....	Moosomin	"
Fothergill, Charles.....	Glen Adelaide.....	"
Vance, Geo. W.....	Moosomin	"
Croft, J. Thomas.....	Carievale.....	15 April, 1901
Wright, Leslie.....	Gainsborough	"
Marshall, Charles H.....	Carnduff.....	17 April, 1901
Bishop, Walter.....	Oxbow.....	20 April, 1901
Darragh, Joseph.....	Oxbow.....	"

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Second Class.—Continued.</i>		
Hames, Alfred A.....	Oxbow.....	20 April, 1901
Lapp, Charles T.....	Alameda.....	"
Wiggins, James T.....	Oxbow.....	"
Foster, James.....	Glen Ewen.....	30 April, 1901
Robb, David M.....	Grenfell.....	13 May, 1901
Bennett, Joseph H.....	Arcola.....	29 May, 1901
Scott, Wallace A.....	Carlyle.....	"
Drain, William.....	Prince Albert.....	30 May, 1901
McBride, William L.....	Prince Albert.....	"
Pendygrasse, John S.....	Halcro.....	"
Shea, Francis W.....	Prince Albert.....	"
Howell, Edward.....	Battleford.....	"
McInnis, Neil B.....	Regina.....	21 June, 1901
Websdale, Francis C.....	Edmonton.....	"
Codd, Ernest.....	Wapella.....	23 January, 1902
Honey, James.....	Maryfield.....	3 February, 1902
McCurdy, John A.....	Moosomin.....	"
McKenzie, John D.....	Oxbow.....	29 April, 1902
Topp, Edron.....	Carnduff.....	6 May, 1902
Sloan, William.....	Lethbridge.....	30 July, 1902
Waldock, John G.....	Medicine Hat.....	18 August, 1902
Freeman, Manfred.....	Lethbridge.....	"
Hillis, Thomas.....	Lethbridge.....	"
LeCain, Hubert C.....	Hyde.....	25 August, 1902
Hammnett, Richard.....	Wolseley.....	"
Hardy, Rowan F.....	Grenfell.....	"
Garratt, Lyle E.....	Grenfell.....	"
Thompson, John.....	Port Arthur.....	30 August, 1902
Waterfield, Thomas A.....	Yorkton.....	1 October, 1902
Parke, John A.....	Churchbridge.....	"
Jones, William C.....	Indian Head.....	4 October, 1902
Lacey, William R.....	Calgary.....	10 October, 1902
Rice, John.....	Calgary.....	"
Hennig, Michael.....	Calgary.....	"
Finch, Robert H.....	Calgary.....	"
Lamoureux, Alphonse.....	Lamoureux.....	18 December, 1902
<i>Third Class.</i>		
Prince, Joseph A.....	Battleford.....	11 July, 1899
Smith, Gavin G.....	Battleford.....	"
Ramsey, David.....	Winnipeg.....	1 August, 1899
Stadelbauer, Simon.....	Spruce Grove.....	18 September, 1899
Russell, Alex. B.....	Regina.....	29 September, 1899
Black, Walter M.....	Wolseley.....	"
Krieke, C. F.....	Wolseley.....	"
Aldous, Robert B.....	Lorlie.....	"
Halley, William.....	Wolseley.....	"
Fotheringham, James.....	Grenfell.....	"
Dash, Albert.....	Grenfell.....	"
Thompson, Charles K.....	Wolseley.....	"
Dixon, William.....	Sintaluta.....	"
Getty, Samuel.....	Moose Jaw.....	"
Brown, Frank.....	Indian Head.....	"
Johnstone, Thomas.....	Qu'Appelle Station.....	"
Fletcher, Alex.....	Moose Jaw.....	"
Thompson, Hugh.....	Moose Jaw.....	"
Smith, N. T.....	Moose Jaw.....	"
Smith, James W.....	Moose Jaw.....	"
Ingram, Isaac.....	Strathcona.....	9 October, 1899

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Third Class,—Continued.</i>		
Vogel, William	Strathcona	9 October, 1899
Currie, Laughlin	Strathcona	"
Hewer, Jesse James	Strathcona	"
Cameron, John	Edmonton	"
Robinson, John	Edmonton	"
Ottewell, Richard P.	Edmonton	"
McKernan, James	Edmonton	"
Witmer, Abraham M.	Strathcona	"
Stewart, Thos. H.	Strathcona	"
King, John	Regina	13 October, 1899
Sanders, S. B.	Grenfell	15 November, 1899
Clement, Lewis J.	Carnduff	17 November, 1899
James, William H.	Whitewood	"
Cross, William	Crescent Lake	"
Ritchie, Charles	Cut Arm	"
Blatchford, Peter	Edmonton	28 November, 1899
Smith, William F.	Athabasca Landing	"
Morkin, John	Dunbow	1 December, 1899
Shaw, John York	Midnapore	"
Stine, Frank	Hyde	13 February, 1900
Stein, Andrew	Tiree	"
Ellermen, Emil	Hyde	"
Cooper, Watt	Canmore	"
Carscadden, F. W.	Strathcona	7 March, 1900
Peirce, George J.	Red Deer	8 March, 1900
Saunders, Elias T.	Lethbridge	23 March, 1900
Clements, Charles H.	Fairmede	25 April, 1900
Krienke, Albert	Ellisboro	"
Faulkner, Gilbert W.	Grenfell	"
Fitzgerald, Gerald D.	Belle Prairie	"
Halflin, Mark	Wolseley	"
Hunt, Arthur	Wapella	"
Harrold, Donald	Edmonton	28 May, 1900
Gagnon, Alfred	St. Albert	"
Martin, Maglorie Z.	Morinville	"
Bergeron, Joseph	Fort Saskatchewan	"
Forsyth, George	Prince Albert	"
Ballantyne, Archibald	Prince Albert	"
Nelson, Frank	Wetaskiwin	30 May, 1900
Pateman, George	Welwyn	"
Merrill, Henry R.	Carnduff	19 July, 1900
Steele, William L.	Oxbow	"
Wilson, J. B.	Carnduff	"
Wilson, James E.	Calgary	"
Jackson, Charles	Calgary	"
Lang, James	Okotoks	"
Snider, John B.	Okotoks	"
Gray, William	Clumber	24 August, 1900
Ritchie, James	Saltcoats	"
Bears, Edward	Clumber	"
Hawkes, A. G.	Broadview	5 September, 1900
Fergusson, William	Moffatt	"
Doan, John	Regina	"
Burkman, John A.	New Finland	"
Murray, James A.	Moosomin	29 September, 1900
Embury, J. R.	Wapella	"
Nixon, T. H.	Wapella	"
Kerr, William G.	Moosomin	"
Godson, Charles	Fairville	"
Park, Richard R.	Maple Creek	"

SCHEDULE of Holders of Certificates of Qualification under The Steam
Boilers Ordinance—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Third Class.—Continued.</i>		
Rutherford, John.....	Medicine Hat.....	29 September, 1900
McKen, James.....	Yorkton.....	15 October, 1900
Chute, Clarence.....	Pasqua.....	"
Erickson, John.....	Wetaskiwin.....	23 October, 1900
McDonell, Finlay.....	The Sturgeon.....	"
Pearce, James.....	Edmonton.....	"
McConnell, William J.....	Lethbridge.....	25 October, 1900
Campbell, Thomas.....	Prince Albert.....	10 November, 1900
Steffes, Ferdinand.....	Morinville.....	15 November, 1900
Steffes, Joseph.....	Morinville.....	"
Heffner, Frank.....	Bruederheim.....	"
McLellan, John.....	Fort Saskatchewan.....	"
McLeod, Millage J.....	Fort Saskatchewan.....	"
McKellar, John.....	Fort Saskatchewan.....	"
Lamoureux, Alcibiade.....	Fort Saskatchewan.....	"
Ross, Thomas G.....	Poplar Lake.....	"
Harms, Peter W.....	Rosthern.....	20 November, 1900
Neufeldt, D. D.....	Waldheim.....	"
Welk, D. A.....	Rosthern.....	"
Peters, Jacob.....	Osler.....	"
Finn, James E.....	Fort Qu'Appelle.....	23 November, 1900
Merchants, John.....	Lumsden.....	30 November, 1900
Grue, Thore S.....	Bittern Lake.....	7 December, 1900
Stine, Fred.....	Tiree.....	12 December, 1900
Beesley, John W.....	Marlborough.....	13 December, 1900
Fowler, James P.....	Moose Jaw.....	"
Rattray, Archie B.....	Edmonton.....	15 December, 1900
Bonnycastle, Thomas.....	Katepwa.....	24 December, 1900
Perkins, William.....	Kenlis.....	"
Stephens, Charles.....	Saltoun.....	"
Minty, Charles J.....	Ferndale.....	"
Nixon, Kendal.....	Wapella.....	"
Holden, J. A.....	Strathcona.....	31 December, 1900
Clink, Geo. I.....	Lacombe.....	"
Hastings, James.....	Indian Head.....	24 January, 1901
Schlegel, Frank.....	Duhamel.....	26 January, 1901
Mitchell, Timothy W.....	Red Deer.....	7 February, 1901
Roberts, William B.....	Beaver Hills.....	"
Doman, Frederick.....	Moosomin.....	21 February, 1901
Barnes, Zechariah H.....	Verna.....	5 March, 1901
James, Charles W.....	Whitewood.....	11 April, 1901
Montgomery, James S.....	Fleming.....	"
Armstrong, Charles W.....	Gainsborough.....	15 April, 1901
Adams, Geo. A.....	Carnduff.....	17 April, 1901
Reynolds, James A.....	Gainsborough.....	7 May, 1901
Flett, John.....	Flett's Springs.....	30 May, 1901
Smith, Alfred H.....	Prince Albert.....	"
Melton, John W.....	Prince Albert.....	"
Wiebe, Heinrich P.....	Hague.....	"
Friesen, Isaac P.....	Rosthern.....	"
Mather, E. M.....	Calgary.....	6 June, 1901
Campbell, Michael.....	Canmore.....	25 June, 1901
Albertson, Andrew O.....	Strathcona.....	"
Frayn, Samuel.....	Coalfields.....	28 June, 1901
Hargest, Richard.....	Edgeley.....	18 July, 1901
Rodgers, Wm. L.....	Qu'Appelle Station.....	"
Campbell, John R.....	Qu'Appelle Station.....	"
Gray, Joseph.....	Qu'Appelle Station.....	"
Rorison, Hugh H.....	Moose Jaw.....	8 August, 1901
Martin, Frederick H.....	Moose Jaw.....	"

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Third Class.—Continued.</i>		
Dalrymple, Archy.....	Moose Jaw.....	8 August, 1901
Jones, Robert.....	Moose Jaw.....	"
Johnstone, Edward.....	Chickney.....	26 August, 1901
Holden, Samuel O.....	Indian Head.....	"
Wilson, William J.....	Indian Head.....	"
Engelland, Frederick C.....	Edenwald.....	27 August, 1901
Fristad, George.....	Gainsborough.....	"
Gravy, John.....	Hyde.....	29 August, 1901
Ward, William T.....	Grenfell.....	"
Macdonald, W. P. C.....	Poplar Grove.....	"
Burman, George W.....	Wapella.....	"
Christian, John E.....	Prosperity.....	"
Millham, Oliver C.....	Hazelcliffe.....	"
McFayden, Neil.....	Red Jacket.....	"
Robertson, Alexander.....	Benbecula.....	"
Shaw, Ezra.....	Davin.....	"
Spooner, Francis W.....	Red Deer Hill.....	7 September, 1901
Bushby, Joseph.....	Whitewood.....	"
Stewart, Archie.....	Edmonton.....	"
Bradley, James.....	Pense.....	9 September, 1901
Werner, Thos. J.....	Carlyle.....	13 September, 1901
Pinney, J. D.....	Oxbow.....	24 September, 1901
Chicard, Victor.....	Sintaluta.....	24 September, 1901
Dargavel, A. M.....	Wolseley.....	"
Hubbs, Annet.....	Sintaluta.....	"
Fleming, Samuel.....	Wolseley.....	"
Barber, Samuel R.....	Wolseley.....	"
Gardiner, Calvin T.....	Balgonie.....	30 September, 1901
Krause, Otto.....	Innisfail.....	1 October, 1901
MacKenzie, John D.....	Dalesboro.....	2 October, 1901
Joyner, Charles A.....	Bentley.....	"
Prentice, Charles W.....	Wolseley.....	3 October, 1901
Burke, Alfred H.....	Elmore.....	"
Perry, M. Truman.....	Alameda.....	15 October, 1901
Ellis, John.....	Weldon.....	"
Hourie, James.....	Prince Albert.....	"
Boyce, H. F.....	Qu'Appelle Station.....	21 November, 1901
Burman, Chas. D.....	Qu'Appelle Station.....	"
Cook, Thos. H.....	Regina.....	23 November, 1901
Muth, John.....	Ebenezer.....	27 November, 1901
Reed, Jas. Henry.....	Yorkton.....	"
Edgington, Guy.....	Red Deer.....	18 December, 1901
Bawtinheimer, H. E.....	Red Deer.....	"
Cruickshank, Chas.....	Red Deer.....	"
Morden, Jacob R.....	Lacombe.....	"
Zuehlke, F. C.....	Urquhart.....	"
Bannerman, Wm.....	Red Deer.....	"
Moore, John R.....	Innisfail.....	"
Nichol, David.....	Innisfail.....	"
Lewis, Wm. H.....	Innisfail.....	"
Billo, Joseph.....	Edmonton.....	"
Flack, S.....	Red Deer.....	"
Trimble, H. W.....	Red Deer.....	"
Stulz, Frank.....	St. Albert.....	"
Noyes, Daniel E.....	St. Albert.....	"
Simpson, Robt. N.....	Edmonton.....	"
Munier, Wilfred.....	Morinville.....	"
Lee, George.....	Edmonton.....	"
Miller, Philip.....	Stony Plain.....	"
Putnam, Albert E.....	Edmonton.....	"

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Third Class.—Continued.</i>		
McKinlay, Murdoch	Stony Plain	18 December, 1901
Meneely, Wm.	Edmonton	"
Bernier, Alexis	Lamoureux	"
Imeson, Geo.	Stony Plain	"
Wulff, Nick	Edmonton	"
Powell, Jas. A.	Edmonton	"
Sollitt, John H.	Strathcona	"
Mikesthus, Michael	Leduc	"
Findlay, Jas. F.	Leduc	"
VanMeter, Chas. E.	Millet	"
Porter, James	Wolseley	2 July, 1901
Fletcher, Thomas	Hill Farm	"
Doughty, James	Calgary	25 July, 1901
McKay, Finlay	Regina	16 August, 1901
Bull, Francis W.	Yorkton	"
Arnold, Archie F.	Yorkton	"
Kearns, William	Qu'Appelle Station	26 August, 1901
Dash, Frederick J.	Hillisdén	29 August, 1901
Dalglish, Thomas	Wapella	"
Kohlruss, Johann	Balgonie	30 August, 1901
McDonald, Allan	Regina	7 September, 1901
Mitchell, Geo. A.	Abernethy	9 September, 1901
Mulberry, David	Spy Hill	13 September, 1901
Gilchrist, Peter	Regina	14 September, 1901
Kelly, John	Edmonton	24 September, 1901
Partridge, Thos. E.	Sintaluta	"
Moulding, Charles	Broadview	"
Watson, Hugh C.	Oxbow	3 October, 1901
Mitchell, James A.	Oxbow	"
Angus, Robert	Angus Ridge	2 October, 1901
Judd, David H.	Calgary	5 October, 1901
Bannerman, James A.	Red Deer	18 December, 1901
Brownlow, Henry A.	Lacombe	23 December, 1901
Hober, John W.	Ponoka	7 January, 1902
Taylor, James A.	Indian Head	17 January, 1902
Siemens, Peter	Anthrécite	18 January, 1902
Bastien, Henry	Prosperity	23 January, 1902
McFayden, John	Wapella	"
Brook, James	Moosomin	3 February, 1902
Gedge, William J.	Moosomin	14 February, 1902
Sickavitch, Jah	Grenfell	15 March, 1902
Lovell, Lawrence	Onion Lake	12 April, 1902
Reeve, Lewis H.	Moosomin	18 April, 1902
Ketcheson, Theodore	Moosomin	"
Loiselle, Jerry	Red Deer	23 April, 1902
Gaetz, James F.	Red Deer	"
Lundy, William T.	Innisfail	"
Smith, Samuel W.	Leduc	"
Pearce, William	Edmonton	"
Pugh, John	Calgary	"
Clauson, John	Red Deer	"
Morkeberg, D.	Innisfail	"
Ferguson, William H.	Oxbow	28 April, 1902
Hill, Edmund	Oxbow	"
Haughton, Charles N.	Carnduff	6 May, 1902
Wilson, Richard F.	Carievale	"
Hill, Alfred	Oxbow	"
Moore, David	Gainsborough	"
Halliday, Ninian	Gainsborough	"
Klippenstein, Abram	Rosthern	23 June, 1902

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Third Class—Continued.</i>		
Wiebe, Henry K.....	Rosthern.....	23 June, 1902
Size, Francis W.....	Whitewood.....	28 June, 1902
Ellerman, Phillip.....	Ellisboro.....	30 July, 1902
Leniczek, Adam.....	Neudorf.....	"
LeCain, Hubert C.....	Hyde.....	4 August, 1902
Smith, George H.....	Boharm.....	7 August, 1902
Cudmore, Everard J.....	Westview.....	"
Ross, William A.....	Milestone.....	"
McLean, Archibald.....	Lethbridge.....	18 August, 1902
Walker, Robert.....	Edmonton.....	"
Brooks, Edward.....	Fairville.....	"
McDermaid, Malcolm.....	Indian Head.....	"
Myllymaki, Jacob.....	New Finland.....	"
Berlinguette, Alfred.....	Whitford.....	"
Currie, William.....	Medicine Hat.....	"
Fair, Francis W.....	Medicine Hat.....	"
Pimm, John.....	Lethbridge.....	"
Lynch, Alexander W.....	Blairmore.....	"
Hill, Albert C. M.....	Grenfell.....	25 August, 1902
Breckenridge, Robert S.....	Rosthern.....	"
Swarts, Jay.....	Tregarva.....	"
Mayhew, William H.....	Broadview.....	"
Blair, John.....	Indian Head.....	"
McLellan, John.....	Fort Qu'Appelle.....	"
Rees, Ilted.....	Wolseley.....	"
Gaddes, James.....	Grenfell.....	"
Vigar, William J.....	Whitewood.....	"
Thompson, Edmund H.....	Grenfell.....	"
Downey, Jeremiah.....	Summerberry.....	27 August, 1902
Thurlby, Fred.....	Indian Head.....	30 August, 1902
Freed, Joseph H.....	North Portal.....	"
Aikman, George.....	Calgary.....	11 September, 1902
Strauss, Abram.....	Rosthern.....	"
Nilsson, Anders.....	Ohlin.....	"
Wyatt, Wm. R.....	Drinkwater.....	18 September, 1902
McPhee, John.....	Lumsden.....	"
Giesbrecht, Jacob.....	Waldheim.....	26 September, 1902
Dyck, Francis G.....	Hague.....	"
Klassen, John S.....	Hague.....	"
Neufeld, Hermon.....	Hague.....	"
Martens, Peter.....	Hague.....	"
Peters, Frank A.....	Hague.....	"
Neufeld, Diederick P.....	Rosthern.....	"
Loewen, Isaac C.....	Rosthern.....	"
Charvet, Eugene.....	Duck Lake.....	"
Neufeld, Johann M.....	Rosthern.....	"
Andres, Gerhard J.....	Rosthern.....	"
Regier, Henry W.....	Rosthern.....	"
Giles, William A.....	Rosthern.....	"
Forge, James.....	Moose Jaw.....	30 September, 1902
Delap, Thomas.....	Frank.....	"
Gray, William, jr.....	Clumber.....	"
Meilicke, Karl.....	Dundurn.....	"
Currie, George D.....	Regina.....	1 October, 1902
Fergus, David M.....	Yorkton.....	"
Peterson, William.....	Yorkton.....	"
Miller, William J.....	Kirkpatrick.....	"
Klassen, Jacob C.....	Rosthern.....	"
Rafie, Andrew.....	Bon Accord.....	2 October, 1902
Olson, Edwin L.....	Prince Albert.....	4 October, 1902

SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.—*Continued.*

NAME	ADDRESS	DATE OF ISSUE
<i>Third Class.—Continued.</i>		
Martin, William A.....	Broadview.....	4 October, 1902
Woods, Thomas.....	Wapella.....	10 October, 1902
Chase, William.....	Wapella.....	"
Hogg, Andrew G.....	Carnoustie.....	"
Kruppa, Joseph.....	Kaposvar.....	"
Ovington, John.....	Moosomin.....	"
Carefoot, William J.....	Moosomin.....	"
Klein, Oscar A.....	Prince Albert.....	"
Gillis, Murdoch.....	Whitewood.....	"
Egaard, Anton F.....	Oxbow.....	13 October, 1902
Anderson, David.....	Elmore.....	14 October, 1902
Townsend, Russell C.....	Canmore.....	20 October, 1902
Walker, Thomas.....	Coalfields.....	21 October, 1902
Ryan, James.....	Wetaskiwin.....	22 October, 1902
Goebel, Valentine.....	Hyde.....	24 October, 1902
Wilcott, Joseph F.....	Manor.....	"
Gougeon, Xavier.....	Saskatoon.....	29 October, 1902
Shantz, Jeremiah B.....	Didsbury.....	1 November, 1902
James, Dunham D.....	Didsbury.....	"
Wood, John J.....	Gainsborough.....	10 November, 1902
Reynolds, John.....	Yellow Grass.....	18 November, 1902
Stewart, John A.....	Red Deer.....	20 November, 1902
Bossard, Walter W.....	Weyburn.....	21 November, 1902
Mortimer, Samuel.....	Strathcona.....	18 December, 1902
Harris, Edward S.....	Star.....	"
Still, William.....	Vegreville.....	"
Stewart, James A.....	Beaver Lake.....	"

ACCOUNTANT'S BRANCH.

Staff.....	<div> <div>1 accountant.</div> <div>1 assistant accountant.</div> <div>1 clerk.</div> </div>
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The great increase in the work of the Department during the past year, which has already been referred to, is clearly indicated in the following details with reference to the work of the Accountant's Branch during the year:

Total amount voted for public works.....	\$260,000 00
Total amount expended.....	\$298,238 59
Number of accounts examined, certified and passed to Treasury Department for payment.....	3,533
Amount collected as Departmental revenue and paid to credit of general revenue.....	\$18,419 51
Amount of taxes received for account of Large Local Improvement Districts and deposited to districts trusts accounts.....	\$90,605 02
Number of accounts for work in Large Local Improvement Districts examined and passed for payment.....	1,521
Number of cheques issued in payment of accounts in Large Local Improvement Districts.....	3,813

Amount received in payment of overdue taxes in Small Local Improvement Districts and paid through trust account to proper districts (No. of cheques issued 1,146).....	\$19,923 41
Total amount dealt with through books of Department during year.....	\$427,186 53

The amount expended during the year from Territorial revenue on public works shows an increase over the preceding year of \$61,664 which is practically the same increase as was shown in last year's report over the expenditure of the preceding year.

The total expenditure by the Department during the year, which includes the payment for work done from Large Local Improvement District funds, it will be noted shows an increase of \$101,928.00. The amount collected as Departmental revenue shows an increase of some \$10,000.00.

It will be noted that the amount collected for taxes in Large Local Improvement Districts shows a large increase over 1901, and special attention is directed to the amount of \$19,923.41 collected in payment of overdue taxes in Small Local Improvement Districts, as compared with the collection of \$5,961.02 in the previous year. The carrying out of collection of overdue taxes in Small Local Improvement Districts has been a successful operation, but this will be more fully dealt with under the heading of Local Improvement Branch. Attention is directed here to the large increase owing to the fact that this sum has brought in a large number of small accounts which add very materially to the work of the Accountant's Branch.

Administration and Supervision.

In previous reports of the Department information under this heading has been given with the object of intimating that the administrative cost of the Department has been kept down to a very low figure. The figure this year shows a slight increase over that of the preceding year, but the percentage of cost of administration is still much below the limit recognised as a fair percentage charge for this class of work.

The figures as to the total amount expended, and cost of Departmental staff, with the percentage cost of administration are as follows:

Total amount dealt with by the Department during year, as shown by foregoing statement.....	\$427,186 53
Total expenditure for Departmental staff.....	18,842 82
Percentage of cost of administration and supervision.....	4 32

Superintendence and Inspection.

Amount expended on bridges, roads, dams, ferries, repairs and reconstruction and other public works requiring superintendence and inspection.....	\$182,975 17
Amount expended for superintendence and inspection.....	5,168 86
Percentage of cost for superintendence and inspection.....	2 82

A slight increase will be noted in the percentage of cost of superintendence and inspection of public works for the year. The figures for 1901 were 2.16 per cent. as against 2.82 per cent. for 1902. However, it will have to be admitted that the showing of the past year is a good one, and that the cost of this service has been kept well within the limits recognised by the best authorities as a fair charge for superintendence and inspection of public works requiring technical skill and training in their design and superintendence.

Surveys Branch.

Staff inside.....	{ Assistant chief surveyor. 1 clerk and typewriter. 1 stenographer and typewriter.
Staff outside.....	Seven district surveyors and engineers.

The work of the Surveys Branch during the season has again reached large limits, and in the matter of surveys completed is practically the same as in the preceding year. In the detailed work of the branch, however, in connection with the preparation of transfers of right of way, record of plans and settlement of compensation for right of way, the work shows a very marked increase. It was found necessary in the early part of the season to provide for an additional district surveyor and engineer in the Calgary district, and Alberta was again subdivided to provide for four instead of three districts, Mr. A. C. Talbot being appointed as District Surveyor and Engineer in the new district with headquarters at Calgary. It was also thought wise to subdivide Assiniboia so as to provide for a central district with headquarters at Regina. A district surveyor was not, however, appointed, the work for this season outside the office having been performed by the Assistant Chief Surveyor who made short trips from Regina in connection with needed surveys. The districts and gentlemen filling the positions of district surveyors and engineers are as follows:

North Alberta District.....	A. Driscoll, D.L.S. and C.E.
Centre Alberta District.....	R. C. Laurie, D.L.S. and C.E.
Calgary District.....	A. C. Talbot, D.L.S. and C.E.
South Alberta District.....	F. J. Robinson, D.L.S. and C.E.
West Assiniboia District.....	A. J. Brabazon, D.L.S. and C.E.
Centre Assiniboia District....	Administered from headquarters.
East Assiniboia District.....	W. T. Thompson, D.L.S. and C.E.
Saskatchewan District.....	Cyrus Carroll, D.L.S. and C.E.

Mr. F. J. Robinson, District Surveyor and Engineer for South Alberta, was unfortunately taken seriously ill in the early part of the year, and was confined to the hospital during the greater part of the year. The pressing work in his district was performed temporarily by Mr. C. H. Ellacott, D.L.S.

The reports of the several district surveyors and engineers, together with the usual schedule of surveys completed, are appended.

EDMONTON, ALTA., December 31st, 1902.

J. S. DENNIS, Esq.,

Deputy Commissioner of Public Works,
Regina.

SIR,—I have the honour to submit herewith my annual report of the work performed by this office during the year 1902.

I took the field early in March for the purpose then of making an examination survey of some largely flooded areas which were still frozen, but from which the snow had gone, permitting an easy examination to be made of the flooded and benefited areas adjacent to the Rat creek drainage scheme.

This work was followed by the usual routine of the summer's work, such as: (1) Locating drains for the benefit of road allowances; (2) surveying old and new roads and road diversions; (3) examination of old bridges for repairs or renewal, and taking cross-sections of sites for proposed new bridges.

The work of the office included the supervising of two steam ditchers and a road grader, also constant advising with two fully equipped bridge gangs, and the usual amount of information furnished to road overseers and others.

Taking these subjects in the order above mentioned the following list shows their location.

I have the honour to be, Sir,

Your obedient servant,

A. DRISCOLL,

*District Surveyor and Engineer.**Drains.*

Drain No.		Sec.	Tp.	Rg.	Mer.
52	Lands taken and surveys made of areas benefited.....		53	24&25	4
2	Taking over unfinished dam from contractor..		55	22	4
2	Along west boundary.....	31	54	21	4
4	From Rat creek north along west boundary....	{ 9-16-21-28- 33-4 & 9	53 54	24 24	4 4
46	From Strathcona east along north boundary..	{ 29 & 30 25-26 & 27	52 52	23 24	4 4
139	To drain Lindsay slough in east boundary....	5	53	23	4
65	To drain road allowance and sloughs on west boundary.....	14, 23, 26, 35	54	26	4
65	To drain slough in.....	4	54	26	4
42	To drain sloughs in 17-54-24-4 into Sturgeon river through St. Albert Settlement.....				
	To drain slough on east boundary.....	17	54	23	4
35	To drain sloughs on north boundary	30	53	23	4
	To drain sloughs on north boundary	19	53	23	4
47	To drain sloughs on north boundary and east boundary.....	35&26	54	24	4
36	To drain sloughs between and inspection of the above in any of which work was in progress	15/16, 21/22	53	24	4

DEPARTMENT OF PUBLIC WORKS

Roads—Old and New and Road Diversions.

Survey No.		Section	Tp.	Rg.	Mer.
	Ties to river lots and change in location west end of Sturgeon river trail (south side) St. Albert Settlement		53		
	Division of road around lake	17&20	53	25	4
	Ties to river lots 17, 19, 21, 23A, 25A of trail Edmonton Settlement.....				
259	Road diversion survey to avoid bends in Bear ck.	33	55	19	4
17	Road diversion around lake	16&21	55	21	4
17	Road diversion to avoid slough.	15	50	24	4
326	Two road diversions to avoid sloughs.....	22	50	24	4
277	Road diversion to avoid creek bends.....	36	54	21	4
9	“ “ around slough	16&20	54	21	4
7	“ “ to avoid banks in Sturgeon river	22&27	55	22	4
7	Diversion to Fort Saskatchewan trail.	26	54	23	4
7	Road diversion around bends of Sturgeon river.	9	54	26	4
210	“ “ “ “ “ “	16	54	26	4
64	“ “ slough	S.E. $\frac{1}{4}$ 5	54	23	4
130	“ “ bends in Black Mud creek.....	7&8	50	24	4
131	Trail survey for road diversion.....	4&5	49	24	4
129	Road diversion to avoid swamp in.....	9	48	25	4
128	“ “ “ “ “ “	4	49	25	4
226	“ “ “ “ “ “	21	48	25	4
226	“ “ “ “ “ “	25	49	19	4
299	“ “ “ “ “ “	36	49	19	4
299	“ “ “ “ “ “	1&6	51	18&19	4
302	Road on blind line along north boundary.....	28	56	18	4
298	Road diversion to avoid slough.....	23	56	18	4
301	“ “ “ “ “ “	11	56	18	4
259	“ “ “ “ “ “	15	56	18	4
202	“ “ to new bridge over Beaver creek	33	55	19	4
66	“ “ to avoid swamp.....	27	54	22	4
6	“ “ “ “ “ “	15	54	22	4
	“ “ “ “ “ “	4&9	56	23	4
	“ “ “ “ “ “	33	55	23	4
235	Old trail survey through river lots 40 and 63 St. Albert.....				
258	Road diversion to avoid swamp	29	54	26	4
236	“ “ “ bend in Point aux Pins creek	29	53	22	4
230	Road diversion to avoid bend in Saskatchewan river in R.L. 3, Edmonton Settlement.				
	Change in Calgary and Edmonton trail from station 330 to station 334.				

Bridges.

The following sites were examined and reported on and in most cases accompanied by a cross section plan of the stream, with a sketch of the existing bridge, if any.

	Sec.	Tp.	Rge.	Mer.
Crossing of Sturgeon river on Lac Ste. Anne trail.....	2	55	1	5
“ “ “ on river lot A, St. Albert settlement.....				
“ “ “	29/20	54	26	4
“ “ “	15/10	54	26	4
“ “ “ on correction line north boundary.....	36	54	24	4
“ “ “ on correction line south boundary.....	8	55	24	4

*Bridges.—Continued.*

	Sec.	Tp.	Rge.	Mer.
Crossing of Sturgeon river.....	8/9	55	24	4
“ “ “ (Wilson's).....	10	55	24	4
“ “ “ (L'Amoureux).....	25	55	24	4
“ “ “ at New Lunnun.....	4	56	23	4
“ “ “ (L'Amoureux).....	27	55	22	4
“ Carrot creek in river lot 13, St. Albert settlement.....	12/13	54	26	4
“ Egg Lake creek.....	27/28	56	25	4
“ “ “.....	1	56	25	4
“ L'Amoureux creek.....	3/4	55	26	4
“ “ “.....	13/18	55	25/26	4
“ Ryan's creek.....	9/10	55	26	4
“ 1st Rat creek, Namayo Avenue, Edmonton..	9	53	24	4
“ 2nd “ “ on Fort Saskatchewan trail.....	15	53	24	4
“ Horse Hill creek.....	17/18	54	23	4
“ “ “ on Fort Saskatchewan trail.....	9	54	23	4
“ Pilon's creek.....	26	54	23	4
“ ravine leading into Saskatchewan river R. Lot 26 Fort Saskatchewan.....				
“ Mill Creek on Dowler's hill road, in river lot 19, Edmonton.....				
“ Creek on river lot 21, Edmonton.....				
“ Dowler's creek on river lot 23A, Edmonton..				
“ small creek on base line.....	34	52	24	4
“ Oliver's creek on base line.....	35	52	24	4
“ Fulton's creek on base line.....	36	52	24	4
“ Old Man's creek.....	12/13	53	23	4
“ “ “.....	12/7	53	22/23	4
“ “ “ Division on north boundary.....	24	53	23	4
“ “ “ “ east boundary.....	24	53	23	4
“ “ “ “ west boundary.....	5	53	22	4
“ Point aux Pins creek on south boundary.....	15	53	22	4
“ “ “ “.....	27/28	53	23	4
“ drain No. 2 on correction line.....	34	54	22	4
“ Beaver creek at Star.....	33	55	19	4
“ Black Mud creek on road diversion, south boundary.....	1	52	25	4
“ “ “ “ on road diversion in M. Lagan's, Ellerslie.....	29	51	24	4
“ “ “ “ on C. & E. trail.....	7	51	24	4
“ “ “ “ on road diversion.....	7	50	24	4
“ Stony or Irving creek.....	4	51	24	4
“ Deep creek.....	36	54	22	4

OFFICE OF THE DISTRICT SURVEYOR AND ENGINEER,

RED DEER, ALTA., *December 31st, 1902.*

J. S. DENNIS, Esq.,

Deputy Commissioner of Public Works,
Regina.

SIR,—I have the honour to make the following report in connection with the district surveyor's office for Lacombe Public Works District.

The principal work during the past season was surveying diversions around sloughs and other soft places that have formed on the road allowances during the late series of wet years. In many of these places the travelled road originally followed the road allowances but the water collected to such an extent that it frequently reaches to the top of the fences. In several cases where the sloughs could be easily and cheaply

drained and the road allowances improved I have reported the matter before surveying diversions, but in others it was cheaper to buy a road around than to either drain or grade across the sloughs although travel will return to the straight road again as soon as it dries.

The surveys completed number 84, comprising new roads, road allowance diversions and parts of old trails. The principal old trails surveyed include parts of Hobbema to Buffalo lake trail, Edmonton to Battle lake trail, and Battle river to Beaver lake. For the second of these trails I was able to substitute road allowances nearly all the way. Amongst the most important new roads are to Tindastoll creamery; east from Blackfalds six miles, around south end of Gull lake; to connect the Calgary and Edmonton surveyed road south of the Battle river near Ponoka and five miles of the road from Wetaskiwin to Pigeon lake.

There were no drains constructed by the Department in this district but considerable traversing and levelling has been done in connection with ascertaining the feasibility of draining the tract of country extending from Innisfail to Red Deer and the diversion of Waskasoo creek. I also received instructions later in the season for a number of smaller drainage schemes but was unable to make any of the necessary surveys.

In addition to road surveys I made four surveys and cross sections for small bridges,—over the Medicine river west of Red Deer; over Spotted creek at Lamerton; over the Waskasoo creek at the south-east corner of the Town of Red Deer, and across Jamieson's coulee east of Red Deer. I also examined the Red Deer river from a point about twelve miles east of Red Deer to the south of Tail creek, locating all suitable points for the establishment of a ferry, reporting the apparent advantages and disadvantages of each one.

The past winter was quite mild permitting me to commence field work in the latter part of February. The spring and early part of the summer were very wet and rainy making the roads almost impassable. This delayed the work very much as the sloughs and creeks were already full from the excessive rain of the year previous. Having received instructions for the season's work I arranged a scheme of travel so as to have the least lost time, and adhered to it throughout the summer. Commencing south of Red Deer and Medicine river districts, thence I worked northward through the Blackfalds, Lacombe and Ponoka districts. I then proceeded to the vicinity of Red Deer lake and completed all surveys except one road about sixty miles long to Willow creek, which I omitted with your permission, thereby being enabled to reach the Wetaskiwin district which it would not otherwise have been possible for me to do. About the middle of October I closed up my work in the north and returned to Red Deer to take up some further surveys for which I had received later instructions, and to clear up the surveys in the vicinity of Innisfail and Bowden. Beginning at Red Deer I worked south to Bowden when I received your instructions to return to Wetaskiwin. I immediately did so and continued in the field until the end of November, when I returned to headquarters and disbanded the party. Winter having set in about the first of November I could not complete the digging of the pits, there being about one hundred sets to be dug in the spring.

I note that the overseers have been doing much better work this year and are paying more attention to draining. There are still places in the vicinity of Wetaskiwin where the plan of filling in sloughs with

straw and manure without any earth is adhered to. This does no good, works up into a filthy batter and is very disagreeable to drive through.

I notice in the large local improvement districts where there is no resident overseer that there are many places where the expenditure of a dollar or two would fix a bad spot. As the money is spent in bulk the road foreman usually attends to the large jobs and the little are left alone. I would suggest that where the district engineer sees any small repair to a bridge approach or a small drain required, he be granted authority to direct it to be done at once.

During the past year there were 268 letters and telegrams received at this office and 311 were sent out.

Your obedient servant,

R. C. LAURIE,
District Surveyor and Engineer.

CALGARY, *December 31st, 1902.*

J. S. DENNIS, Esq.,
Deputy Commissioner of Public Works,
Regina.

SIR,—I beg to submit the following report on the surveys performed by me during the past season in the district of Calgary.

My appointment as District Surveyor and Engineer for Calgary was made in the latter part of the month of June. As at the time I had not yet completed the returns of my last surveys for the Department of the Interior, it was the 6th of July only that I was able to leave Ottawa. On my way from Ottawa to Calgary I stopped at Regina to receive my instructions and take detailed informations about the work allotted to me for the season. I arrived at Calgary on the 13th of July.

The following days I was busy buying my transport outfit, supplies, and hiring labourers to help me on the survey. This was soon completed but I was afterward delayed waiting for my camp equipage, which had to come by rail from Prince Albert. Owing to the bad condition of the railway at the time, freight delivery was very slow at Calgary; though I telegraphed twice I could not get any information about my camp equipage which was on the road at the time, and was uncertain as to the date of its arrival here. Seeing that the season was already far advanced I decided to buy a complete new camp equipage and left for my work on the 30th July. At the date I left Calgary I had instructions for (36) thirty-six different surveys of new roads and road diversions and I received instructions for (15) fifteen more during the season; of these (37) thirty-seven have been surveyed, (7) seven have been abandoned or reported on for further instructions and (5) five are left over for next season's work. According to instructions received in July I made an examination of the damage done by water to the boulevard on the north bank of the Bow river in Section 17 Township 24-1-5, and reported on it. Later on I made a survey of the place and prepared plans showing proposed protection work to prevent further damage, together with estimate cost of the same.

Much time was taken travelling from one survey to the other through the district, as the roads have been in very bad condition for the whole season. Considerable time was also lost in some instances

hunting ranchers and settlers to get information about the roads to be surveyed and locating the boundaries of sections in which said roads had to be surveyed.

I remained at work in the field until the 4th of November, when, after a few days of cold weather, the ground was frozen hard and I was compelled to quit work for the season. I was near Didsbury at the time. I drove back to Calgary in a snow storm and discharged my party on the 6th. Since then I have been working in the office preparing plans and field notes of the surveys made during the season.

SCHEDULE of surveys performed during the season 1902.

Road in Sections 16 and 21 Township 25-1-5, to new bridge site across Beddington creek.

Road in Section 26 Township 30-1-5, to bridge over Rosebud river.

Road in Sections 16, 17 and 18 Township 31-1-5, to bridge over Rosebud creek (Surveys 58-02 and 231-02).

Road diversion in Sections 4 and 5 Township 24-1-5, to avoid cut banks and deep coulee.

Change of location of road in Sections 11 and 14 Township 22-1-5, across Pine creek.

Road diversion in Section 15 Township 22-1-5, to avoid deep sloughs.

Road diversion in Section 27 Township 20-29-4, to obtain grade to hill.

Road diversion in Sections 22 and 29 Township 20-29-4, to obtain grade up hill.

Road in Sections 16, 15, 21 and 29 Township 20-29-4 (Nos. 103-02 207-02), to bridge over Sheep creek at Okotoks.

Road diversion in Section 33 Township 19-28-4, to avoid deep slough.

Road across Section 29 and road diversion NE corner of Section 29 Township 18-28-4, to avoid muskegs and obtain grade down hill.

Road across Sections 19, 20 and 21 Township 18-29-4, to obtain grade across Squaw coulee.

Road across Section 5 Township 19-28-4, to avoid slough and connect with street in town.

Road Diversion in Section 9 Township 21-1-5, to avoid steep hill.

Road diversion in Sections 32 and 33 Township 20-1-5, to avoid steep hill.

Road across Sections 5 and 8 Township 1-2-5, to Sheep creek near Millarville.

Change of location of surveyed trail in Sections 10, 15 and 22 Township 25-2-5, to avoid bad slough and coulee.

Road in Sections 23 and 24 Township 24-1-5, to new bridge on Nose creek.

Road diversion in Section 11 Township 24-2-5, to obtain grade down steep hill.

Change of location of surveyed trail in Sections 7 and 8 Township 24-2-5, to obtain grade down steep hill.

Road diversions in Section 2 Township 23-29-4, and Section 35 Township 22-29-4, to avoid deep sloughs.

Change of location of surveyed trail in Sections 4 and 5 Township 22-29-4, being part of South Blackfoot trail.

Road diversion in Section 7 Township 21-28-4, to avoid deep slough.

Road diversion in Section 2 Township 22-1-5, around a hill.

Road diversion in Section 17 Township 22-1-5, to obtain grade up Jamieson hill.

Road diversion in Section 19 Township 22-1-5, to avoid slough.

Road diversion in Section 29 Township 22-1-5, to avoid sloughs.

Change of location of surveyed trail in Sarcee Indian Reserve, Township 23-3-5.

Road across Sections 33 and 34 Township 25-4-5, and Section 4 Township 26-4-5, from Jumping Pond creek bridge to steel bridge at Cochrane.

Road across Sections 5 and 8 Township 27-4-5. Extension of Horse creek trail.

Change of location of surveyed trail in Sections 24 and 25 Township 26-4-5. Grand valley trail near Cochrane.

Road in Sections 20, 29, 32 and 33 Township 26-5-5, from Perry's House to Morleyville trail.

Road in Sections 19, 29 and 30 Township 26-5-5, to avoid slough and obtain grade down hill.

Road diversion in Section 11 Township 31-1-5, to avoid deep slough.

Survey of part of the boulevard on the north bank of Bow river in Sections 17 and 18 Township 24-1-5, where it was cut away by water. Plans and estimates cost of protection works,

Proposed Surveys Examined and Reported on.

Survey No. 100-02. Road from Okotoks to north boundary of Township 20-29-4. Reported on; abandoned.

Survey No. 324. Road diversion between Section 7 Township 23-28-4, and Section 12 Township 23-29-4. Examined and referred to Deputy Commissioner for instructions.

Survey Nos. 44-02 and 303-02. Road from steel bridge over Bow river and across railway track to the town of Cochrane. Examined and abandoned for the present.

Survey No. 97-02. Road diversion between Sections 32 and 33, Township 22-2-5, near Carter's ranch. Examined and reported on, advising to abandon it.

Survey No. 113-02. Road diversion between Sections 19 and 30 Township 18-29-4. Not wanted since road across Squaw coulee has been surveyed.

Survey No. 252-02. Road diversion in Section 1 Township 22-2-5. Referred to Deputy Commissioner for further information.

Surveys left over for Next Season's Work.

Survey No. 342 from Andrew Adam's property, N.E. $\frac{1}{4}$ of Section 16 Township 26-1-5, to Beaver Dam.

Survey No. 276-02. Roadway in Section 31 Township 24-4-5. For John Murray.

Survey No. 286-02. Roadway over Dog Pound creek bridge in Section 34 Township 30-3-5. Recommended by the Assistant Chief Engineer.

Survey No. 294-02. Road diversion in Section 31 Township 23-28-4. Near Shepard.

Survey No. 303-02. Road from steel bridge over Bow river at Cochrane to crossing of Jumping Pound creek, through Townships 24 and 25 Ranges 4 and 5.

In closing this report I take the liberty to suggest that much time would be saved if the overseer in each local improvement district was instructed to meet the District Surveyor and Engineer and give him information about the surveys required in his locality.

Your obedient servant,

ALBERT CHAS. TALBOT,
District Surveyor and Engineer.

MEDICINE HAT, ASSA., *December 31st, 1902.*

J. S. DENNIS, Esq.,

Deputy Commissioner of Public Works,

Regina.

SIR,—I beg to submit herewith the following report on my operations in the field during the past season.

In consequence of your letter of the 30th of April stating that a petition had been received requesting the construction of a bridge over Plume creek, in Township 11 Range 5 west of the 4th, on the Medicine Hat and Eagle Butte trail, and directing me to make a cross section of the creek for the purpose of enabling the Department to order the necessary material for the bridge, I decided to attend to this matter before any other, and therefore on the 5th of May repaired to Plume creek for that purpose, but on my arrival there I found the trail at a point a short distance south of the creek to diverge into two branches both of which cross the creek about a mile apart, and was at a loss to know at which one the cross section should be taken. I drove to different ranches in search of information on this point, but could learn nothing definite until the next afternoon, when I met Mr. Burton, one of the chief movers in getting up the petition, who told me that a bridge anywhere between the two crossings would accommodate all concerned. I therefore selected the road allowance between Sections 28 and 29 as the most advantageous location, took a cross section of the creek, and on the 7th proceeded to Dunmore where I carefully examined the valley of Bullshead creek, as well as the country from the north boundary of Section 20-12-5-4 to the north boundary of Section 19-11-4-4, between the portions of the Medicine Hat and Josephburg road surveyed respectively by R. J. Jephson and R. C. Laurie for the purpose of establishing by the most expedient route, corresponding with the best bridge site on the creek, the unsurveyed portion of the said road between the above mentioned boundaries, and having satisfied myself in this connection I took a cross section of the creek, made the survey, and on the 22nd left for Josephburg, inspecting on my way the road surveyed by Mr. Laurie across Section 4 Tp. 11-4-4.

At Josephburg, where I arrived on the 23rd, I established the Josephburg and Elkwater lake road, from the north boundary of Section 22-9-3-4 to the south boundary of Section 36-8-2-4, between the portions of the same road surveyed by R. C. Laurie and R. J. Jephson respectively, and returned to Medicine Hat arriving on the 6th of June, and crossed

to the north side of the Saskatchewan the same day, where I surveyed a road from the east boundary of Section 6-13-5-4 through Sections 31 and 36, and 35-12-5 and 6 to the east boundary of Section 3-13-6-4, which I finished on the 20th, recrossed the river and moved to Crockford Bros' coal mine in Section 5-13-6-4. Examined the road thereto and sent a report in on its condition containing an estimate of the probable cost of repairing the damage done it by the flood in the Saskatchewan a short time previously. I afterwards surveyed a road from the mine to the east boundary of Section 33-12-6-4, and on the 25th, the day following the completion of this survey, I set out for Maple Creek in which district my time was occupied for the balance of the season.

Had I been at liberty to make the foregoing surveys in the most advantageous order from Medicine Hat, I could have gone to Maple Creek on the completion of the Josephburg and Elkwater lake road survey, *via* Graburn, and, by doing the work required on the Maple Creek-Graburn trail on my way, would have reached Maple Creek with a saving of at least a hundred miles of travel.

On the 30th June I commenced the survey of the old Fort Walsh trail from the north boundary of Section 36 Township 10-27-3, *via* Four Mile coulee to the east boundary of Section 4 Township 6-29-3 in Ten Mile coulee, where I closed on the 20th of August. I took cross sections of four creeks on this trail, and, owing to the conflicting and indefinite views of the ranchers with regard to its location, I was obliged to resurvey about fifteen miles of it. Some of the ranchers could not see any necessity for the survey, one going so far as to say he was thinking of filling the pits, and asking me what he would be allowed for doing so. I told him he would likely be allowed the option between six months and \$50.00 for every four he filled. In consequence of my survey not closing at Ten Mile coulee I went over about six miles of my work looking for the error, but not finding it I concluded it was in the subdivision of the township, and commenced the survey of the section lines through the coulee in which the bush is very thick and through which no lines appeared to have been opened in the subdivision survey. Here I found the error after a considerable loss of time, and on the 21st moved to Township 10-29-3, where I examined the road allowances from the east boundary of Section 5 Township 10-28-3, the western extremity of the portion of the Maple Creek-Graburn trail surveyed by R. C. Laurie to the north boundary of Section 33-9-29-3, the eastern extremity of the portion of the same trail surveyed by R. J. Jephson, with a view of connecting by a new road the said extremities of the surveyed portions of the above trail, in the event of the route *via* the road allowances being found impassable. I have already informed you that a new road at this place would not be any improvement on the road allowances without extending it beyond the western extremity of the Laurie survey in an easterly direction and beyond the eastern extremity of the Jephson survey in a westerly direction. I, however, surveyed three diversions from the road allowance between Townships 9 and 10 Ranges 28 and 29-3, the first in Section 3-10-29, the second in Section 1-10-29, the third in Section 5-10-28. Before completing the surveys of these diversions, however, I received your letter of the 21st of August directing me, at the earliest possible date, to change my survey of the old Fort Walsh trail, to follow the trail *via* Six Mile coulee from Section 14-9-27-3 to Ten Mile coulee. I therefore returned to Section 14, after finishing the

surveys of the above diversions, where I arrived on the 27th, but had only proceeded with the survey as far as the north boundary of Township 6 Range 29, when I received your letter of the 6th September directing me at once to locate the east boundary of Section 30 Township 11-26-3 to enable Mr. Hammond to build a bridge over Fish creek on the road allowance between Sections 29 and 30, the site selected by Mr. Ellacott, D.L.S., for the bridge, but who failed to leave any marks to indicate the location. The day following the receipt of your letter I set out for the above township where I established the east boundary of Section 30 without the least difficulty, the section and quarter-section corner mounds being very easily found. I was surprised to learn at Maple Creek that the engineer who had been in the Maple Creek district for the purpose, I understand, of selecting and approving selected bridge sites, looked for the one in question but failed to find it, through which failure I was obliged to leave my work and make this long journey for a matter of only trifling importance as the construction of this bridge was not to be commenced till some time in January. Following the location of the east boundary of Section 30, I returned to Township 6 and resumed work on the old Fort Walsh trail, and, on its completion I changed the numbers of the posts of the previously surveyed trail *via* Four Mile coulee, from Section 14-9-27-3 to the east boundary of Section 3-7-29-3, making of it a new road by which the ranchers of Battle creek and Four Mile coulee will have access to Maple Creek, and in consequence of this trail *via* Six Mile coulee, rendering the remaining portion of this one of no public use, I obliterated all the survey marks along it from the last mentioned boundary to Ten Mile coulee, and returned to Maple Creek, arriving there on the 26th, where I surveyed a road diversion from the north-east corner of Section 10-11-26-3 to the south boundary of Section 6-11-25-3, and on its completion I proceeded to Township 14-26-3, in which I surveyed a road diversion from the east boundary of Section 22 through Sections 23 and 14 to the east boundary of Section 10, returning to Maple Creek on the 6th, and, working eastward therefrom, surveyed a diversion in Section 9-11-25-3, which I finished on the 8th, and the same day commenced the survey of another from the north boundary of Section 32 to the north boundary of Section 23-10-25-3, completing it on the 14th. Following the survey of this diversion I examined the road allowance from the quarter section corner on the north boundary of Section 23-10-25-3 to the north-east corner of Section 22-10-22-3 and found it necessary to establish eight road diversions therefrom, owing to the broken nature of the ground it crosses, in order to afford a good road between the above corners. The first of the diversions is in Sections 23 and 24-10-25, second in Sections 28 and 29-10-24, the third in Section 23-10-24, the fourth in Section 25-10-24, the fifth extends from the north boundary of Section 19 through Sections 30, 29, 28, 27 and 26, to the north boundary of Section 23-10-23, the sixth in Sections 23 and 26-10-3, the seventh in Sections 25 and 30-10-23 and 22, and the eighth is in Section 28-10-22. I completed the survey of the last of the above diversions on the 5th of November, having also taken a cross section of Skull creek, and, the weather being cold and the snow about eight inches deep, I decided to return to winter quarters and the following day I set out for Medicine Hat. On my return journey I surveyed a diversion in Sections 17 and 18-10-24-3, and lost a day searching for the obstacle necessitating a diversion between Sections 14

and 15-10-25-3, which I failed to find, as none exists. The requisition for this diversion I afterwards learned was made by mistake. I arrived at Medicine Hat on the 14th and on the 15th I examined and found by measurement that the change in that part of the Medicine Hat-Dunmore road, crossing the north-east quarter of Section 29-12-5-4, asked for by Mr. Jenkins, could not be effected without encroaching on the C.P.R. right of way. On the 17th I crossed to the north side of the Saskatchewan at the request of the Rev. Mr. Nicholls, and made a change in the survey of that part of the Stair-Medicine Hat road crossing the property of the church. The change in this survey completed my field work for the season.

With regard to future surveys I can only say that work in this line is accumulating rapidly, but I do not know of any particular survey that should be attended to before another; every survey applied for should, in the opinion of the applicant, be made first, which is impossible, and therefore the simplest way of dealing with the matter would be to make the surveys in the most advantageous order.

While I was working in the neighbourhood of Maple Creek the Board of Trade of that town at one of its meetings discussed the opening up of a sufficient number of new roads in the Maple Creek district alone to keep a surveyor constantly employed, I was told, for years.

In conclusion I may say that it is almost impossible to get labouring men in Western Assiniboia. I was without a cook for over a month, and during part of that time had only two men, and for over two months had only two men and a cook, and as a survey cannot be carried on with any degree of satisfaction without a full party it will be seen that my operations were greatly retarded for want of a sufficient number of men.

Your obedient servant,

A. J. BRABAZON,
District Surveyor and Engineer.

OFFICE OF THE DISTRICT SURVEYOR AND ENGINEER,
SOUTH QU'APPELLE, ASSA., *December 31st, 1902.*

J. S. DENNIS, Esq.,
Deputy Commissioner of Public Works,
Regina.

SIR,—I beg to submit the following report on the work performed by me as District Surveyor and Engineer for East Assiniboia during the past year.

From the beginning of the year to June 10th I was occupied in completing plans of road and other surveys made by me under your instructions in the previous year and on the date mentioned my survey party, having been organised, left Qu'Appelle for the season's field work. In consequence of the unusual rainfall the roads were in a very bad condition and our progress was considerably retarded.

Owing to the large amount of work to be attended to in the central part of my district I found it impossible to visit Saltecoats and Yorkton districts, and several surveys in other districts had also to be deferred, but all of these will be completed as soon as possible after the spring opens.

On November 6th work was discontinued in the field and I returned to Qu'Appelle on the 11th, since which date I have been occupied

preparing returns of surveys and have also made two small surveys, viz., a road diversion near Estevan and Sunbeam reservoir near Indian Head.

Detailed reports relating to the different items of work performed having already been forwarded to you, I append hereto a schedule of these surveys and for fuller particulars the reports mentioned may be referred to.

Road Allowance Diversions.

LOCATION				OBJECT OF SURVEY
Sec.	Tp.	Rg.	Mer.	
E $\frac{1}{2}$ 35	15	8	2	To avoid deep slough on road allowance to east.
NE $\frac{1}{4}$ 18	16	7	2	“ “ “
NW $\frac{1}{4}$ 5	16	7	2	“ “ to west.
W $\frac{1}{2}$ 31	16	9	2	“ “ “
W $\frac{1}{2}$ 28, 33	17	9	2	“ “ “
34 & 35	18	10	2	To obtain right of way for graded fallow hill road.
SW $\frac{1}{4}$ 6	17	9	2	To avoid deep slough on road allowance to south.
9 & 10	18	10	2	To avoid ravines on road allowance to the north.
29 & 32	18	7	2	To avoid pond on road allowance to east.
11, 12 & 14	18	9	2	To obtain easy grade out of Qu'Appelle valley to south.
36	12	33	1	To avoid ponds and sloughs on road allowance.
30 & 31	12	32	1	
9, 10 & 15	21	9	2	To obtain suitable crossing of a ravine.
19 & 24	16	7	2	To obtain right of way for graded road down ravine.
1	11	3	2	To avoid lakes, ponds and sloughs on road allowance between ranges 2 and 3 leading to Big Fish lake.
36, 25 & 24	10	3	2	To obtain slough on road allowance to west. To avoid several crossings of Qu'Appelle river. To obtain suitable crossing of Montgomery creek. To obtain right of way for graded road on south side of Pipestone valley.
19 & 30	10	2	2	
NW $\frac{1}{4}$ 25	13	5	2	
SW $\frac{1}{4}$ 22	18	9	2	
SE $\frac{1}{4}$ 5	14	3	2	
SW $\frac{1}{4}$ 34	14	3	2	

New Roads.

LOCATION				OBJECT OF SURVEY
Section	Tp.	Rge.	Mer.	
1, 2, 3, 4, 10, 11, 12	17	7	2	To provide access to Grenfell from the east.
14, 15, 16	18	32	1	To provide easy grade leading down bank of Qu'Appelle valley to C.P.R. station site.

Old Trails.

LOCATION				OBJECT OF SURVEY
Section	Tp.	Rge.	Mer.	
13, 14, 22, 27, 23, 28, 29, 30, 7 & 8	18	3	2	To extend Qu'Appelle valley road eastward from west end of Round lake to Warren's bridge.
	18	2	2	
16, 17, 18, 13, 14, 15, 10	18	32	1	To extend Qu'Appelle valley from new C.P.R. station site in section 16 westward so as to provide access to these points.
	18	33	1	

Re-Surveys of Roads.

LOCATION				OBJECT OF SURVEYS
Section	Tp.	Rge.	Mer.	
SE $\frac{1}{4}$ 25	19	7	2	To change location of Qu'Appelle valley road in N.E. $\frac{1}{4}$ of section 24.
12	16	5	2	To change location of road across Moulding property.

Cross Sections for Bridges.

LOCATION				REMARKS
Section	Tp.	Rge.	Mer.	
8	21	13	2	New site for bridge near east bridge across Qu'Appelle river at Fort Qu'Appelle.
6	18	31	1	Across small creek in Qu'Appelle valley on road leading to Dunsmore's crossing.
1 & 6	19	7&8	2	Across Qu'Appelle river on range line.

Drains.

LOCATION				OBJECT OF SURVEY
Sec.	Tp.	Rg.	Mer.	
19&30	19	7	2	To drain slough on road allowance between these sections.
35	17	2	2	To drain pond on road allowance to east of these sections.
+10&15	20	14	2	To drain slough on road allowance between these sections.
30	10	2	2	To drain slough on road allowance to west.
†sw $\frac{1}{4}$ 31	17	2	2	" " "
†25	16	3	2	" " to east.
sw $\frac{1}{4}$ 2	20	8	2	" " to west.
{ 12	17	10	2	To drain sloughs on road leading from Wolseley to Summerberry.
{ 7&17	17	10	2	

† Indicates that plans, etc., have been completed and forwarded to the Department.

Reservoir.

LOCATION				OBJECT OF SURVEY
Sec.	Tp.	Rg.	Mer.	
N $\frac{1}{2}$ 11	18	13	2	To ascertain flooded area and define limits of land to be reserved for public use.

DEPARTMENT OF PUBLIC WORKS

Repairs to Dams.

LOCATION				REMARKS
Sec.	Tp.	Rg.	Mer.	
11&14	18	13	2	Sunbeam dam on road allowance between these sections, examination and report on repairs necessary.
34&3	17&18	9	2	Doheny dam on road allowance between these sections, examination and report on repairs necessary.

In addition to the uncompleted surveys, for which I have received instructions, I would recommend the following as important, viz.:

Road across the Qu'Appelle valley and through Indian Reserve (1) between Cotham and Broadview, Tps. 18, 19A & 19, Ranges 4 and 5 w2M. (2) Road leading north out of Qu'Appelle valley *vice* McLean hill in Sections 22, 27 & 28, Tp. 18 Range 9 w2M.

During the season I passed over a great deal of newly settled country, and a large amount of land has been taken up by parties who will locate upon it next spring.

Crops throughout the district have been very good and settlers appear prosperous and contented.

Your obedient servant,

W. T. THOMPSON,
District Surveyor and Engineer.

OFFICE OF THE DISTRICT ENGINEER,
PRINCE ALBERT, *December 31st, 1902.*

J. S. DENNIS, Esq.,

Deputy Commissioner of Public Works,
Regina.

SIR,—Of the thirty surveys authorised for the past year I have been able to undertake twenty-two, leaving eight to be done next year.

I think I can perform two or three of these eight during the next month.

The last and by far the largest of my surveys was the portion of the Battleford and Onion Lake trail, from Frenchman's Butte to Onion Lake, a distance of about twenty-five miles, and having tie lines of about five miles more. Nearly all of my other surveys were short road diversions to avoid sloughs. In many cases there was a track already made and used. Such tracks did not facilitate in any way the making of the surveys, but showed that the work was needed. The Fire Ordinance has been productive of much good to the country, but in making these surveys I found my work vastly increased by the trees, brush and scrub that have taken the place of the former open prairie.

The old stake marks and pits are yearly becoming more difficult to find, but must be hunted up for the purposes of the surveys.

Of the first mentioned twenty-two surveys I have transcribed the field notes, made plans in duplicate, and reported on fourteen, leaving eight for which I am now transcribing the field notes and making duplicate plans.

Owing to the sudden breaking up of the ice in the rivers last spring and the unprecedentedly high water, my presence was required at and near my headquarters longer than usual, but I got out on surveys as soon as I could safely do so and continued almost without intermission till the last days of October, when the first snows came and the season closed.

In the early summer there was much rain; later there were continuous high winds; the whole season was unusually cold, but not unfavourable for work. In so large a district there is necessarily much travelling, and with the camp equipment and outfit no great speed can be made. Everything necessary for the work must be carried along. To minimise the time and the mileage of travel I have generally so arranged as to go continuously ahead.

I have found that men and team for transport cannot always be got at a day's notice, nor for short and intermittent terms of work.

In certain cases, notably in that of the land of the Hudson's Bay Company at Prince Albert, and that of the lands of the Indian School at Battleford, there is a state of things that would seem to call for legislation. In both these cases there are alleged town plots, of intricate and fancifully small lots on streets and in blocks that never had, and it is safe to say never will have, an existence. The plans thereof are registered, but I think it can be conclusively proved that in those parts where road diversions are now made no stakes were ever planted. At present certain salient points can only, after much labour, be ascertained. From the skeleton thus created the surveyor must to the best of his ability calculate and lay down the portion of each lot taken and the portions not taken, entailing an enormous amount of work, much chance of error, and great expense in the papers and the registrations that have to follow in completing the expropriation.

Roads.

The repairs to the embankment at the steel bridge over Shell river on the Prince Albert and Shellbrook road made in 1901 stood well, though the water for some weeks was higher than ever known before, reaching into the steel superstructure. But by keeping a man on the bridge to pass the floating logs it was saved.

The Dominion Government grant of \$5,000.00 greatly improved this road and made much needed repairs in many places. The late Mr. McNabb, who was in charge of the Dominion Government work, I am glad to say consulted with me as to some of the repairs, especially to the embankment at the bridge and the raising of the bridge. On my return from surveys I found he had only raised the bridge two feet instead of four feet as I had intended, also that the bridge (a small one in the embankment) had not been made as large as I had specified. But I think there will be no danger from high water next spring. I will put a man on the bridge for a few days, if necessary, when the ice goes out.

Two small contracts of last year let but not finished, were completed this year, viz., Government Drain No. 23 on section 20-47-27 west of the second meridian, and Gray's bridge, section 18-47-26 west of the second meridian.

The surveys are enumerated in appendices 1, 2 and 3.

Drainage.

The benefits of drainage are getting to be better understood. It is noticed that farmers are beginning to drain their lands; the road overseers are making more offtake ditches than formerly.

I note a case where a road overseer was surprised and delighted with the result of a small drain along the side of the road. This led to enquiries as to other possibilities of drainage in the vicinity.

But it must be remembered that people rise up at once in opposition if a drain brings water on their lands, whether that direction is the line of natural flow of the water or not. Claiming damages in anticipation—where damage may not ensue.

Investigations, Levels and Reports.

There were fifteen cases where levels were taken for drainage and for road construction. In many of these cases the reports went into details; specifications were made so that the work, if authorised, could be done under a foreman.

In the matter of lowering the waters of Duck lake I have tried to find a feasible outlet, but so far I have not succeeded. The lake appears to be constantly rising and flooding the adjacent roads and lands. I hope to get at these levels again this winter. This case and others will be found more in detail in schedule 4.

Investigations and reports have been made as to the chances of making certain roads—on the regular road allowances—such roads not only required for convenience, but in some cases being absolutely necessary—as the old travelled trails are being fenced up and incorporated into farms. These are all in the schedule to which I beg to refer for more particulars.

I may remark that road overseers are averse to making any repairs to bridges or approaches if such were built by the Government. The same may be said as to culverts. Thus a small dangerous break is often allowed to remain for a considerable time practically closing the road for a long distance.

At the Eagle hill on the Saskatoon and Battleford trail I made a survey to change a portion of the road where the hills as at the present time are far too steep for travel. I was successful in greatly reducing the grades, making most of them fairly easy. The maximum grade is 1 in 11. This is of considerable length, but I managed to secure level rests at convenient intervals.

I cross sectioned and set stakes marked with cut and fill, as I understood from the late Mr. Sinclair, M.L.A., that there was an appropriation for this work.

Ferries.

The ferries were in danger more than once from the exceedingly high water. Warnings by telegraph and by messengers prevented much loss.

It is in order here to remark that ferrymen prefer a *low* cable because it is more easy of access, to make attachments and to oil the pulleys. Hence it has come about that they sometimes lower the

supports. The folly of such an action is very plainly to be seen when the last five feet of a rise in the water takes the cable with it.

Generally it may be stated that they only look after the cable and its surroundings when in use. Therefore, when a sudden flood occurs they are afraid of applying the full strain on the cable to raise it out of danger, as the deadman might break or the capstan give out in the trial.

Nor do they sufficiently regard the convenience of the public in getting on and off the scow. It is not unusual to see teams scramble, jump and bump on the scow as best they can, with the apron a foot above the level from which the wagon must rise. Very seldom indeed is any proper landing placed for the scow to abut against and its apron overlap. Making all due allowance for the difficulties arising from the frequent risings and fallings of the water, it is submitted that ferrymen should not be indifferent to such conditions. Movable platforms adjusted as required would greatly aid in the matter of landing; even a few round poles—easily got—would often be of much use.

At Carlton there is a sand bank taking up about two-thirds of the river bed. The sand is very soft. There is one spot where it is quicksand, with water oozing up through it and quaking like a bog. This is very dangerous. A team, if stuck in it, would, I think, never get out. The banks at the water's edge are far too steep, being washed under.

Possibly a small steam dredge might be advisable to clear a channel through the sandbank.

Recommendations for Next Year.

My time has been so taken up with surveys that I am not in a position to say much as to special cases needing attention. Many such there are, I am sure, that I cannot just now point out.

There is a bridge on the Prince Albert and Carleton trail that is sadly in need of repairs. It is the bridge over McFarlane's creek, and as nearly as I could ascertain on section 36-46-1 west of the third meridian. The timbers are mostly good but the centre bent is undermined and sunk about four feet, making the crossing difficult and dangerous.

A small bridge is required over a stream near the railway on the east side of section 25-44-2 west of the third meridian. The cost would be about \$150.00.

There is much need for the road allowance to be opened from Mr. Acorn's place, west side of section 6-47-26 west of the second meridian north to the Lily Plains road so as to be passable for travel. Mr. Acorn is about closing an old track through his fields. There is need of opening out the road allowances, section 22-47-27 west of the second meridian.

In the matter of lowering the waters of McFarlane's creek I would say that this will be a matter of a very considerable expense, as there are many miles of it to attend to and a small steam dredge would have to be used. But I have no hesitation in saying that the benefits of such lowering of the water of the creek, in facilitating the drainage of roads along its course, would justify the undertaking of that work early next season.

The drainage of the roads not only makes it possible to properly and permanently improve them, but it is also an incidental benefit to adjacent lands.

Road Overseers.

I would recommend that road overseers be instructed to make immediate repairs in cases of small breaks in the roads, as culverts, washouts, mudholes, approaches to bridges.

All of which is most respectfully submitted.

CYRUS CARROLL,
District Surveyor and Engineer.

SCHEDULE 1.—Surveys ordered, performed, reported. Plans in duplicate duly attested sent in.

New road S. 7-49-26w2.

New road and closing of old road S. 3/4-44-2w3.

Road diversion S. 15/22-48-25w2.

Road diversion S.E. $\frac{1}{4}$ of S. 16 and N.E. $\frac{1}{4}$ of S. 9-48-25-2 and road diversion S.W. $\frac{1}{4}$ S. 10-48-25w2.

Road diversion N.E. $\frac{1}{4}$ S. 18-46-27w2.

Road diversion S. $\frac{1}{2}$ S. 17 and S.W. $\frac{1}{4}$ S. 20-46-27w2.

Road diversion S. 24/25-42-2w3.

Road diversion S.E. $\frac{1}{4}$ S. 8 and N.E. $\frac{1}{4}$ S. 5-47-27w2.

Road diversion N.E. $\frac{1}{4}$ S. 21 and N.W. $\frac{1}{4}$ S. 22-42-2w3.

Road diversion W. $\frac{1}{2}$ S. 34/27/22 Tp. 42-2w3.

Road diversion N.W. $\frac{1}{4}$ S. 33-42-2w3.

SCHEDULE 2.—Surveys ordered and performed but not yet mapped. Plans are being prepared.

Road diversion S.W. $\frac{1}{4}$ S. 6-45-16w3.

Road for ferry near Osler, S. 7-39-2w3.

Trail Frenchman's Butte to Onion Lake, 27 miles.

New road S. 17-43-16w3.

New road at Eagle hills, Battleford trail.

New road S. 14-40-13w3.

New road Lovel's ferry at Elbow S. 39 in R. 8w3.

New road N.W. $\frac{1}{4}$ S. 21-46-19w3.

SCHEDULE 3.—Surveys ordered but not done in 1902.

Road Sec. 6/7-46-6w3 (Wingard ferry).

Road S. 15-46-27w2.

Road S. 20-44-20w2.

Road Tp. 46-24/25w2 (Adam's ferry).

Road S. 10/15-43-5w3.

Road S.W. $\frac{1}{4}$ S. 18-45-21w2.

Road S. 5-46-26w2.

Drain S. 16-44-18w2.

SCHEDULE 4.—Examinations, Levels, Investigations and Reports.

In the matter of drainage of Duck lake, 3 days and levels and explorations to find an outlet. It is proposed to try this again this winter.

Levels and investigation for road S. 22-47-27w2 (Messrs. Hughes & Scott). Reported.

Examination as to culvert on Carleton trail on River Lot 53, Prince Albert belt. Reported.

Examination as to more complete offtake to Government Drain No. 23, S. 20-47-27w2. This is now done for the present by William Chas. McKay, the contractor for the said ditch. Reported.

Investigation and levels S. 6/7-48-27w2. Preliminary in April, final in June. Reported.

In re damages claimed by R. J. Pritchard on account of culvert on road allowance opposite S. 4-48-26w2. Reported.

Investigation asked for by the late A. McNabb as to the advisability of surveying a road diversion S. 29/30-47-26w2. Not yet done.

Levels, part survey and investigation as to the drainage of certain sloughs affecting and on roads S. 3-48 and S. 34-47-26w2. R. J. Pritchard and Robt. Stanley. Reported.

Levels as to drainage S. 21-48-25w2 (McClog's). Reported.

Levels as to drainage at Osler and Hague. Reported.

Investigation as to drainage on S. 16/19-42-2w3.

Specifications for drains in Tp. 46-27w2.

Specifications as to repairs at steel bridge on Prince Albert and Shellbrook road and on said road (Partly carried out by the late Mr. McNabb as part of the Dominion Government grant of \$5,000.00.)

Levels and staking out cuts, at Eagle hills, Battleford trail. Estimate made but not yet reported.

Levels and estimates, drain sloughs S. 3-37-6w3. Not reported.

Levels and estimates, drain sloughs S. 34-36-6w3. Not reported.

Levels and estimates, drain sloughs S. 22-36-6w3. Not reported.

Levels and estimates, drain sloughs S. 27-36-6w3. Not reported.

Investigation at Adam's ferry as to running the scow. Reported.

Investigation as to Lots 17 to 26, Prince Albert belt, as to the matter of drainage and roads (Mr. Raney). Reported.

SURVEYS Made During the Year 1902.

District of West Assiniboia.

Road between Medicine Hat and Stair, from east boundary S. 6-13-5 to east boundary S. 3-13-6w4.

From Maple Creek east, T. 10, 11-22 to 26w3.

Old Fort Walsh trail, Maple Creek to Ten Mile coulee, from S.14-9-28 to S 3-7-29w4.

Diversion in S. 1/3-10-29w3, and in S. 5-10-28w3.

From Medicine Hat to Josephsburg across Bullshead creek, T. 12-5w4.

Between Josephsburg and Elk Water lake from north boundary S. 22-9-3 to north boundary S. 25-8-2w4.

Road to coal mine through S. 4/5 13 and S. 28/33-12-6w4.

Diversion in S. 11/14/23-14-26w3.

Diversion in S. 17/18-11-24w3.

Diversion across S. 26/27/28/32/33-10-25w3.

Road from S. 10-11-26w3 to S. 6-11-25w3.

District of Saskatchewan.

- Diversion in N.W. $\frac{1}{4}$ S. 15-48-25w2.
- Diversion in S. 9/16-48-25w2.
- Diversion in S. 18-46-27w2.
- Diversion in S. $\frac{1}{2}$ S. 17 and S.E. $\frac{1}{2}$ S. 20-46-27w2.
- Diversion in S. 5/8-47-27w2.
- In N.W. $\frac{1}{4}$ S. 21-46-19w3.
- Road to bridge over Storer's creek, S. 14-40-13w3.
- Road diversion around slough, S. 23/26-42-2w3.
- Diversion in W. $\frac{1}{2}$ S. 6-45-16w3.
- Resurvey across S. 17-43-16w3.
- Diversions in S. 21/22/23/28-42-2w3.
- Old trail, Frenchman's butte to Union lake.
- Road on both sides North Saskatchewan river, S. 25/30-39-8/9w3, to approaches to ferry at Henrietta.
- Diversion in S. 22/27/34-42-2w3.
- Change in location of road in S.W. $\frac{1}{4}$ S. 18-45-21w2 and S.E. $\frac{1}{4}$ 13-45-22w2.
- Diversion in S. 33-42-2w3.
- Road on side Eagle hill creek, S. 5/8-39-10w3.
- Road to Osler ferry, S. 7-39-2w3.
- Road in S. 7-49-26w2.
- Diversion in S.E. $\frac{1}{4}$ S. 22-48-25w2.
- Diversion in S.W. $\frac{1}{4}$ S. 10-48-25w2.
- Road in S. 3/4-44-2w3.

District of North Alberta.

- Diversion in S. 15/22-50-24w4.
- Diversion in S. 33-55-19w4.
- Diversion in S. 4/9-56-23w4.
- Diversion in S. 16/20-54-21w4.
- Diversion between S. 22/27-55-22w4.
- Diversion between S. 15/16, and 9/10-54-26w4.
- Diversion to give access to schoolhouse and bridge, S. 9/16-54-26w4.
- Diversion around slough, N.W. $\frac{1}{4}$ S. 15-54-22w4.
- Diversion to avoid a bend in Deep creek between S. 6/36-54/55-20w4.
- Diversion in S. 5-54-23w4.
- Diversion across S. 9/10-50-24w4.
- Diversion at Deep creek, Fort Saskatchewan - Victoria trail, in S. 16/21-55-21w4.
- Diversion in S. 21-48-25w4.
- Road across River lots 37 and 40, St. Albert settlement.
- Diversion in S. 4/5-49-25w4.
- Diversion in S. 4/5-49-24w4.
- Diversion in E. $\frac{1}{2}$ S. 9-48-25w4.
- Diversion in S. 27-54-22w4.
- Diversion in S. 25/36-49-19w4.
- Road across River lot 3 in Edmonton settlement, T. 52-24w4.
- Old trail through River lots 40 and 63, St. Albert settlement.
- Diversion in S. 29-53-22w4.
- Diversion to avoid swamp S. 29-54-26w4.

Diversion in S. 11-56-18w4.
 Diversion in S. 33-56-18w4.
 Diversion in S. 15-56-18w4.
 Diversion in S. 23-56-18w4.
 Diversion in S. 33/4 Tps. 55/56-23w4.
 Diversion in S. 1/2 S. 5-55-24w4.
 Diversion in S. 7/8-50-24w4.
 Diversion around lake, S. 17/20-53-25w4.

District of Centre Alberta.

Resurvey of the Blackfalds-Buffalo lake trail in T. 39-26/27w4.
 Road around south end Burnt lake in T. 38-28w4 and T. 38-1w5.
 Diversion in S.W. 1/4 S. 28-45-23w4.
 Road in S. 30-36-1w5, and S. 25-36-2w5.
 Diversion in S. 36-37, and S. 3/4-38-26w4.
 Part of Hobbema-Buffalo lake trail, T. 43-22/23/24w4.
 Road through S. 31/32-42-25, and S. 25/36-42-26w4.
 Trail from Battle river to Beaver lake, Tps. 46 to 51-18/19/20/22w4.
 Road around a lake in S. 13-45-22w4.
 Portion of the Edmonton-Battle river trail *via* Hay lakes Tps. 47/48-21w4.
 Diversion north from Lacombe in S. 29-40-26w4 and S. 5/7/8/18-41-26w4.
 Road along the north boundary of S. 29 Tp. 46-21w4.
 Road around south end of Coal lake in S. 26/35-36-46-23w4.
 Road along east side of Red Deer lake through S. 2/3/9/10-44-22w4.
 Diversion to avoid a slough S.E. 1/4 S. 35-45-24w4.
 Road in S. 4/9/16-41-24w4.
 Road across S. 19-40-26w4.
 Road around lake in north 1/2 S. 20-45-22w4.
 Diversion in W. 1/2 S. 19-40-25w4.
 Road west from Red Deer, north of river, T. 38-27/28w4.
 Diversion in N.W. 1/4 S. 31-39-24w4.
 Road from Innisfail east, S. 26-35-28w4.
 Road from Bowden west, S. 27-31-1w5.
 Road along north boundary T. 45-21/22/23w4.
 Road through S. 7/8/9/10-46-25w4 and S. 13-46-26w4, being road to bridge at north of Bear lake.
 Wetaskiwin to Pigeon lake, T. 46-25/26w4.
 Road across S. 25/26/35/36-41-27w4.
 Road west of Ponoka across S. 4/5/6/7/8/9-43-26w4.
 Road east of Ponoka in N. 1/2 S. 34-42-24w4.
 Road over Red Deer river in S. 6/7-36-28w4.
 Diversion in N.W. 1/4 S. 5-44-22w4.
 Diversion in N.W. 1/4 S. 6 and W. 1/2 S. 7-45-22w4.
 Diversion east of Bittern lake S. 33-46 and S. 9/27-47-21w4.
 Diversion in S. 28/29/32-37-27w4.
 Diversion in S. 9/21/22-46-21w4.
 Road across S. 1/12-42-25w4.
 Road around south end of Gull lake S. 22/23-40-28-4.
 Road east from Wetaskiwin in T. 46-18/19/20/21/22w4.

District of Calgary.

Old trail from Canmore to Morley (Stony Indian reserve) T. 24/25-7/8/9/10w5.

Diversion between S. 34/35-22-29w4 and S. 2-23-29w4.

Diversion in S.E. $\frac{1}{4}$ S. 7-21-28w4.

Road in S. 5/8-27-4w5.

Road in S. 5/8-21-2w5.

Diversion from the North Morleyville trail in S. 2/3/11-26-4w5.

Road across S. 16/21-25-1w5.

Diversion in S. 11-22-1w5.

Diversion in N.E. $\frac{1}{4}$ S. 11-24-2w5.

Diversion of the C. and E. trail in S. 26/35-30-1w5.

Diversion in S. 32/33-20-1w5.

Road to bridge over Rosebud creek in S. 16/17/18-31-1w5.

Diversion in N.W. $\frac{1}{4}$ S. 9-20-1w5.

Diversion in W. $\frac{1}{2}$ S. 15-22-1w5.

Diversion in S. 17-22-1w5.

Diversion in S. 19-22-1w5.

Diversion in S. 29-22-1w5.

Road from Jumping Pound creek S.E. $\frac{1}{4}$ S. 4-26-4w5, south-east along south side of Bow river through S. 33/34-25-4w5 to connect with road at steel bridge.

Diversion in S. 2-22-1w5.

Road across S. 5-19-28w4.

Road across S. 15/16/21/29-20-29w4.

Diversion in S. 27/34-20-29w4.

Diversion in S. 29-18-28w4.

Diversion in S. 19/20/21-18-29w4.

Diversion in S. 33-19-28w4.

Diversion in S. 6/7/8-24-1w5.

Diversion in S. 19-26-5w5.

Road in S. 24/25-26-4w5.

Change in present surveyed trail made by D. L. S. Wilkins in 1894, from near centre of S. 35 through the S.E. $\frac{1}{4}$ of that section and through S. 25 to near centre of S. 24, all in T. 26-5w5.

Road on south side Sarcee Indian reserve S. 35-22-3w5.

Road across S. 17/20/29/32/33-26-5w5.

Diversion in S. 15-20-29w4.

Road in S. 13/23/24-24-1w5.

Diversion in S. 5-24-1w5.

Diversion in S. 1-22-2w5.

Diversion in S. 3/4-22-29w4.

Diversion in S. 22/27-20-29w4.

Diversion in S. 15/22-25-2w5.

Diversion in N. $\frac{1}{2}$ S. 11-31-1w5.

District of South Alberta.

Road from Gap to Oil Fields, T. 1/2-30w4 and T. 1-1w5.

Road from Lyndon-Macleod trail, S. 13-11-28w4 to S. 1-11-29w4.

Road from Willow Creek bridge to Old Man's river bridge through S. 17/20/29-9-26w4.

- Diversion between S. 15/16-8-21w4.
 Diversion in S. 10/15/16-7-29w4.
 Road from Pincher Creek to the Kootenai lakes and oil fields, T. 4/5/29/30w4.
 Diversion between S. 28/33 and S. 27/34-5-28w4.
 Diversion in S. 16/21/22/28-5-28w4.
 Diversion in S. 23-5-28w4.
 Diversion in S. 17/20-5-28w4.
 Diversion in S. 35-5-1w5.
 Road in S. 2/3/4-6-1w5.
 Diversion along north boundary S. 32/33-5-30w4.
 Diversion in N.W. $\frac{1}{4}$ S. 12-5-30w4.
 Diversion in N.E. $\frac{1}{4}$ S. 15-7-1w5.
 Road from S. 33-7-25 to S. 30-7-24w4 to Blood Indian reserve.
 Road from Beaver creek trail up Five Mile creek, T. 9/10-29w4.
 Resurvey of road across S. 27/34-8-26w4.
 Road to Beaver creek in T. 9-26/27/28/29w4.

District of Centre Assiniboia.

- Diversion in S.E. $\frac{1}{4}$ S. 15-17-21w2.
 Road from Marieton to junction with road from Craven to Strassburg, Tp. 21/22-21/22w2.
 Diversion through S. 8/17/20-18-21w2.
 Road across ford of Little Arm creek from S. 4 to S. 12-21-23w2.
 Diversion in S. 24-19-23w2, running north-east towards Disley.
 Diversions in S. 15/23/27-15-17w2.
 Diversion in S. 22/23-19-22w2.
 Road in S. 36-15-26w2.
 Diversion in N.E. $\frac{1}{4}$ of S. 22-17-19w2.
 Road across S. 33/4-19/20-21w2.
 Diversion in S. 29-19-20w2.
 Diversion in E. $\frac{1}{2}$ S. 19-19-20w2.
 Road to railway crossing in S.W. $\frac{1}{4}$ S. 33-19-21w2.
 Road from Lumsden to Craven, north side of Qu'Appelle, S. 3/4/10/11/14-20-21w2.
 Road through S. 27/34-21-19w2.
 Diversion in S. 33-16-25w2 and S. 4-17-25w2.
 Road in S. 5/6-17-25w2.
 Road in S. 9-9-17w2.
 Road up hill north of Craven in S. 23/24-20-21w2.
 Diversion in S. 26/27-20-21w2.
 Diversion in S.E. $\frac{1}{4}$ S. 21-19-22w2.
 Diversion in S. 16-18-21w2.
 Road around Bishop's ravine, S. 4/9/16-21-21w2.

District of East Assiniboia.

- Old trail in Qu'Appelle valley from Harmony bridge, S. 2-18-31w1, west across R. 31/32w1.
 Diversion in S.E. $\frac{1}{4}$ S. 28-18-2w2.
 Diversion in S. 5-14-3w2.
 Diversion in S. 19/24-16-6/7w2.

- Diversion in S. 9/10/15-21-9w2.
- Diversion between S. 13/14-1-1w2.
- Road in S. 5-16-7w2.
- Diversion in S. 35-15-8w2.
- Road through Assiniboine or Indian Head Indian reserve, T. 15/16/
17-11w2.
- Road across S. 1/2/3/4/9/10/11/12-17-7w2.
- Diversion in S. 18-16-7w2.
- Diversion between S. 5/6-16-7w2.
- Diversions in S. 10/11/12/13-16-7w2.
- Diversion in S. 17/18-16-7w2.
- Diversion on west boundary S. 31-16-9w2.
- Diversion in S. $\frac{1}{4}$ S. 25-2-8w2.
- Diversion in S. 28/33-17-9w2.
- Road up Fallow hill in S. 34/35-18-10w2.
- Diversion in S.W. $\frac{1}{4}$ S. 6-17-9w2.
- Diversion in S. 9/10-18-10w2.
- Diversion between S. 32/33-19-7w2.
- Diversion between S. 19/30-19-7w2.
- Diversion in S. 4-18-2w2.
- Diversion between S. 10/15-20-14w2.
- Diversion in N. E. $\frac{1}{4}$ S. 29 and S. E. $\frac{1}{4}$ S. 32-18-7w2.
- Diversion in S. 11/12/14-18-9w2.
- Diversion in S. 30/31-12-32w1 and S. 36-12-33w1.
- Road in S. 35-17-10w2.
- Diversion in S. 1/19/24/25/30/36-10/11-2/3w1.
- Road in S. 14/15/16-18 32w1.
- Resurvey of road in S. 12-16-5w2.
- Diversion between S. 5/6-19-7w2 and S. 7/12-19a-7/8w2, across the
valley of the Qu'Appelle.
- Diversion in N.W. $\frac{1}{4}$ S. 25-13-5w2.
- Diversion in S. 34-14-3w2.
- Diversion in N. E. $\frac{1}{4}$ S. 8-16-6w2.
- Diversion in N.W. $\frac{1}{4}$ S. 28-17-9w2.
- Diversion in S. $\frac{1}{2}$ S. 19-14-2w2.
- Diversion in S. 9/16-20-12w2.
- Diversion in S. 22-18-9w2.
- Resurvey in S. 24/25-19-7w2.

Geographic Board.

The work of the Territorial representative on the Geographic Board during the past year has largely consisted in consultation with the board in reference to a large number of names to be used in connection with the issue of the large map of the Dominion issued during the year by the Department of the Interior, and in connection with the issue of the revised edition of the Territorial map which was printed in May last. There has been a large demand for this map owing to the fact that it is up-to-date in so far as the surveys of the Territories are concerned, and it has proved of great value in connection with the general movement of people to the west now taking place.

ENGINEERING BRANCH.

Staff.....	{ Assistant chief engineer, 1 draughtsman, 1 outside clerk of works.
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The work of the Engineering Branch will be found to show the same marked increase as in other branches of the Department during the past year. In fact, as this is the branch of the Department in which the larger bulk of the work properly coming within the term "Public works" is undertaken, it is to be expected that the work of the branch will for several years show an increase each year if an effort is to be made to keep up with the requirements.

The detailed office work of the branch during the year was as follows:

Number of plans prepared, indexed and recorded.....	207
Number of contracts prepared and recorded.....	129
Number of bills of quantities for material prepared	350

The figures, it will be noted, show a large increase over those of last year and indicate that the office work of this branch has been of the same pressing nature as in the other branches of the service.

Owing to the damage caused by floods in the west and the large amount of bridge work which it was necessary to undertake in connection therewith, it was found desirable to keep the Assistant Chief Engineer in the west during the whole season, and his headquarters were therefore established at Calgary, as the most central point from which to direct the work of reconstruction or repair of old bridges and the construction of new bridges provided for.

MAINTENANCE AND REPAIR OF BUILDINGS.

The crowded condition of all of the departmental buildings must again be referred to, and, unless some decision is arrived at in the near future as to permanent quarters for the Government departments, it is quite evident that serious inconvenience in carrying on the departmental work will result from the overcrowded condition of practically all of the offices.

It is also necessary again to refer to the fact that the want of vault accommodation is a serious question in practically all of the departments where valuable records are liable to destruction by fire; and this is particularly true of the Department of Public Works, where the present vault accommodation is totally insufficient for the needs of the Department, and records with reference to surveys, local improvement assessments and water rights for irrigation are liable at any time to be wiped out of existence by fire, and their loss would necessitate the expenditure of a very large sum of money in any attempt to duplicate them.

Minor repairs were undertaken in all the departmental buildings, and in the LeJeune block, which we occupy under lease for the Department of Agriculture and the Department of Education, a new heating apparatus was provided.

Owing to the increased representation, granted by the bill passed at the last session of the Legislative Assembly, it became necessary to provide increased accommodation in the Legislative chamber. This was accomplished by extending the chamber to the south, so as to provide additional seating room on the floor of the House and also space for the public and press. As it now stands the chamber provides somewhat better accommodation than it did, but at best it is only a makeshift and far from being in keeping with the work of the Legislative Assembly.

The work of improving the grounds surrounding the Government buildings was continued during the year, and a qualified gardener employed, and the work done has added much to the appearance of the grounds. In connection with this work it was found desirable to provide a small green-house for use in preparing plants for the garden in the early part of the year.

The lease under which quarters are provided for the Normal School in one of the Public School buildings in the town expired in September, but under arrangements with the School Board it has been renewed for another year. I have again to point out that the necessity for considering the matter of the erection of a Normal School building is deserving of attention in view of the large rent which is being paid and the cramped and crowded quarters provided under the existing lease.

REPAIRS TO PUBLIC WORKS.

The season of 1902 will certainly be a memorable one in so far as the damage to public works from excessive floods is concerned. In the western portion of the Territories these floods reached an unprecedented height, and while it is not an unusual feature to have high water in the spring, we not only had a flood at that time, but later on in the summer we had a second flood, which reached a much higher level than the one of the earlier season. A vast amount of damage was caused by these freshets, and bridges belonging to this Department, the C.P.R. and to the Dominion Government were destroyed, and at one or two points serious damage and financial loss was caused to municipalities and individuals by the destruction of buildings and other property. At Cardston a very considerable portion of the town was undermined and a large number of buildings entirely washed away, while others were undermined and seriously damaged. In the city of Calgary the excessive floods on the Bow river caused great damage. In the village of Pincher Creek damage was caused both to the village property and to the buildings of private individuals, and at numerous places the excessively high water proved a menace both to public life and property.

All things considered the Department is to be congratulated on the small number of large and important bridges which were damaged or lost. In the south the old steel bridge over the St. Mary river at Cardston was entirely destroyed, the destruction of this bridge being largely due to the fact that houses from the village of Cardston situated above the bridge on the east were carried against the structure and created a dam which necessarily destroyed the bridge. South of Macleod the bridge over the Waterton (Kootenai) river at Stand Off escaped the first flood but was destroyed by the second flood owing to the large

amount of drift which was carried down by the stream and lodged against the structure. In the Pincher Creek district the steel bridge which crosses the South Fork river, formerly called south fork of Old Man river, was damaged, the end of one span being dropped into the stream. In the Sheep river district the bridge crossing that stream at Okotoks was damaged, one span being washed out. In the Calgary district damage was caused to the steel bridge over the Elbow river at the Weasel head crossing and the Bow marsh bridge over the Bow river at Calgary. In these cases, in common with many others, the existing structures were not washed out, but large portions of the banks were carried away, necessitating the erection of additional spans. All over the country small bridges were washed out and in the majority of instances, where these structures were old, were entirely destroyed.

The work of attempting to replace the larger of the more important bridges to meet the requirements of public travel necessarily formed a serious undertaking, owing to the shortness of the season and the great difficulty experienced in obtaining material. It will be noted, from the schedule given later on, that an exceptionally large amount of work was completed. The possibility of doing this work was entirely the outcome of the present system of erecting new and repairing old bridges by qualified bridge gangs under competent foremen, instead of attempting to do the work by contract.

CONSTRUCTION OF BRIDGES.

The usual schedule of bridges constructed, reconstructed, or repaired during the season, is given hereunder.

Two hundred and eighty bridges were dealt with during the season as compared with 113 dealt with during the year of 1901. The expenditure in connection with the construction, reconstruction and repair of bridges during the season amounted to \$146,633.11, and this amount shows an increase over the expenditure of the preceding year of \$44,253.97. The marked increase of 167 bridges constructed, reconstructed or repaired over the preceding year is worthy of note and will indicate that every effort was made by the Department to deal vigorously with this important section of the season's operations.

SCHEDULE of Bridges constructed, rebuilt and repaired, 1902.

Antler creek, south (S. 2-3-32w1)	Reconstruction 30 ft. wooden truss, 20 in. approaches at each end. All on piles.
Antler creek, south (S. 13/18-2-31/32w1).	Reconstruction 40 ft. truss on double pile bents.
Angling creek on Cold lake trail	Construction 20 ft. span, 14 ft. approach at each end on piles. Superstructure hewn timber.
Assiniboine river at Kamsack.	Painting and repairs to approaches.
Battle river (S. 5/6-46-23w4).	Repairs to approaches.
Battle river (S. 31-45-22w4).	Repairs to approaches.
Beaver creek (S. 5/6-56-19w4).	Reconstruction 40 ft. wooden truss on double pile bent, piers planked up. 20 ft. approach at each end.
Beaver creek (S. 5-56-19w4)	Reconstruction, three 20 ft. spans on pile bents.
Bear creek (S. 29-10-23w3).	Construction two 20 ft. spans on pile bents.

Berrydale creek (S. 3/34-34/33-2w5).....	Construction 20 ft. span on pile bents.
Berrydale creek (S. 15/16-34-2w5).....	Construction 20 ft. span on pile bents.
Big Knife creek (S. 7/18-40-17w4).....	Construction 20 ft. span, 12 ft. approach at one end, 16 ft. approach at the other on pile bents. Superstructure hewn timber.
Bigstone creek (S. 7-46-25w4).....	Repairs to approaches.
Bigstone creek (S. 28-46-25w4).....	Repairs to approaches.
Blackmud river (S. 29-51-24w4).....	Reconstruction 40 ft. wooden span, on double pile abutments.
Blackmud river (S. 9/16-50-24w4).....	Reconstruction three 20 ft. spans on pile bents.
Blackmud river (S. 9/10-50-24w4).....	Reconstruction 20 ft. span on piles.
Blackmud river (S. 12/13-50-24w4).....	Reconstruction 20 ft. span, 12 ft. approaches at each end on piles.
Blackmud river (S. 11/12-50-24w4).....	Reconstruction 20 ft. span on piles.
Blackmud river (S. 16/17-50-21w4).....	Reconstruction 30 ft. wooden truss, 20 ft. approach at each end on piles.
Blindman river (S. 16-39-28w4).....	Construction 80 ft. steel span on double pile bent piers, planked up 22 ft. approach at each end.
Boggy creek (S. 1/6-19-20/21w2).....	Reconstruction 20 ft. span on pile bents.
Boggy creek (S. 26/27-18-20w2).....	Reconstruction three spans of 20 ft. on pile bents.
Bow river at Canmore.....	Reconstruction two 112 ft. wooden truss spans, 24 ft. approach at each end. Timber and pile piers.
Bull's Head creek (S. 16-12-5w4).....	Construction 20 ft. wooden truss, 20 ft. approach at each end on pile bents.
Bulls Head or Plume ck. (S. 28/29-11-5w4)	Construction three 20 ft. spans on pile bents.
Bull Horn coulee (S. 32-2-27w4).....	Construction 20 ft. span on pile bents.
Carrot creek (S. 19-54-25w4).....	Reconstruction 20 ft. span on pile bents.
Carrot creek (S. 12/13-54-26w4).....	Reconstruction 20 ft. span on pile bents.
Carrot creek (S. 7/8-45-21w2).....	Reconstruction three 20 ft. spans on pile bents.
Cut Arm creek (S. 11-21-33w1).....	Repairs.
Cut Arm creek, Metcalf's crossing.....	Repairs.
Cow creek (S. 13/14-8-2w5).....	Construction two 20 ft. spans on piles.
Creek (S. 27-7-22w3).....	Construction two 20 ft. spans on piles.
Creek (S. 9/16-11-25w3).....	Construction two 20 ft. spans on piles.
Creek (S. 22/27-17-19w2).....	Construction 20 ft. span on pile bents.
Creek (S. 7-8-14w2).....	Construction 20 ft. span on pile bents.
Creek (S. 31/32-9-15w2).....	Construction 18 ft. span on pile bents.
Creek (S. 17/18-16-16w2).....	Construction 16 ft. span on pile bents.
Creek (S. 26/27-11-17w2).....	Construction 16 ft. span on pile bents.
Creek (S. 7-10-15w2).....	Construction 10 ft. span, frame bents.
Creek (S. 4/32-11/10-16w2).....	Construction 20 ft. span, pile bents.
Creek (S. 13/14-46-27w2).....	Repairs to approaches.
Creek (S. 35-42-3w3).....	Repairs.
Creek (S. 6/31-41/42-3w3).....	Construction three 20 ft. spans on pile bents.
Creek (S. 25/30-42-2/3w3).....	Repairs.
Creek (S. 9/16-42-21w3).....	Construction 18 ft. span on pile bents.
Creek (S. 3/4-43-4w3).....	Repairs.
Coal creek (S. 2-27-5w5).....	Reconstruction two 18 ft. spans on pile bents.
Creek (S. 5-56-19w4).....	Reconstruction three 20 ft. spans on pile bents.
Creek near Pine lake (S. 22-36-25w4)...	Reconstruction 20 ft. span on pile bents.
Creek on township line (T. 6/7-1w5)....	Construction 18 ft. span on pile bents.
Creek (S. 2-47-20w4).....	Construction two 18 ft. spans on pile bents.
Creek (S. 11-47-20w4).....	Construction two 17 ft. spans on pile bents.
Creek (S. 22/23-49-25w4).....	Construction small span on pile bents.
Creek (S. 22/23-26-1w5).....	Construction three 20 ft. spans on pile bents.
Creek (S. 16/17-26-1w5).....	Construction 20 ft. span on pile bents.
Creek (S. 2-28-4w5).....	Construction two small spans.
Creek (S. 13/14-6-30w4).....	Reconstruction 16 ft. span on pile bents.

Creek (S. 31/6-45/46-23w4).....	Construction two 20 ft. spans on pile bents.
Creek (S. 20/21-20-2w5).....	Construction 12 ft. span on frame bents.
Creek (S. 12/13-53-23w4).....	Construction 16 ft. span on pile bents.
Crowfoot creek (S. 29-23-21w4).....	Construction 30 ft. truss on piles.
Coulee (S. 13-24-1w5).....	Construction 16 ft. span on frame bents.
Coulee (S. 3/4-55-26w4).....	Construction small bridge.
Coulee (S. 22/23-40-27w4).....	Construction 13 ft. span 4 ft. high.
Dead Horse creek (T. 29-32w1).....	Repairs.
Dried Meat creek (S. 16/17-45-18w4)....	Construction two 18 ft. spans on piles, 8 ft. approach at each end.
Elbow river, Weazel Head crossing....	Repairs 40 ft. wooden truss, extension at south end.
French flat creek (S. 3-7-1w5).....	Reconstruction 20 ft. span on frame bents.
Fish creek on Calgary and Macleod trail	Reconstruction 80 ft. steel span on double pile bents, piers planked. Two 20 ft. spans at each end on piles.
Fish or Gap creek (S. 34/2-10/11-27w3)..	New floor put on bridge.
Foothill creek (S. 26/27-5-28w4).....	Construction two 20 ft. spans on pile bents.
Favel creek (River lot 19, Victoria)....	Reconstruction 15 ft. span.
Fish creek (S. 19-2-27w4).....	Reconstruction two 20 ft. spans on pile bents.
Fish creek (S. 22-22-3w5).....	Reconstruction 50 ft. wooden truss on double pile bents, piers planked up. 20 ft. approach at each end.
Goose Hunting creek (S. 30-44-20w2)...	Reconstruction 20 ft. span on pile bents.
Government Drain No. 38 (S. 29-19-1w2)	Construction 18 ft. span on frame bents.
Governm't Drain No. 38 (S. 28/29-19-1w2)	Construction 16 ft. span on frame bents.
Government Drain No. 2 (S. 34-54-22w4)	Construction two 20 ft. spans on pile bents.
Horse Hill creek (S. 8-54-23w4).....	Reconstruction 20 ft. span on piles.
Horse Hill creek (S. 17/18-54-23w4)....	Construction 20 ft. span on piles.
Horse Creek (S. 8-26-4w5).....	Reconstruction 30 ft. span, 20 ft. approaches on piles.
Hawse creek (River lot 7, Victoria) ...	Reconstruction 25 ft. span.
High river (Calgary and Macleod trail).	Repair centre pier and rock filling.
Jumping Pound creek (S. 4-26-4w5)....	Construction 125 ft. wooden truss on double pile bent piers, 20 ft. approaches at each end.
Kipp's coulee (at village of Sterling)...	Construction 40 ft. wooden truss on double pile bents.
Kootenia (Waterton R. near Stand Off	Reconstruction three steel spans 110 ft. long on double pile bent and timber abutment.
Katchemut creek (S. 7/21-51-18/19w4)...	Reconstruction 30 ft. wooden truss with 20 ft. approach at north end on piles.
Little Pipestone creek (S. 19-11-33w1)..	Reconstruction three 20 ft. spans on pile bents.
Little Red Deer creek (T. 52-24w3).....	Construction six 20 ft. spans on pile bents.
Lone Pine creek (S. 5/32-32/33-28w4)....	Construction 20 ft. span on pile bents.
Lone Pine creek (S. 6/36-34/35-26w4)....	Construction small bridge.
Mill creek (River lot 19, Edmonton) ...	Reconstruction 25 ft. span, 16 ft. approach at each end. All on piles.
Moose Jaw creek (S. 20/29-15-24w2)....	Reconstruction 30 ft. wooden truss, two 20 ft. span at each end. All on piles.
Moose Jaw creek (S. 4/5-17-25w2)....	Construction 50 ft. wooden truss, five 20 ft. spans. All on piles, piers planked up.
Moose Jaw creek (S. 4-16-26w2).....	Construction 50 ft. wooden truss on double pile bents, piers planked, 16 ft. span at one end and 12 ft. at the other.
Moose Jaw creek (S. 9-10-17w2).....	Construction two 20 ft. spans on piles.
Moose Mountain creek (S. 15/22-3-2w2)..	Repairs.
Moose Mountain creek (S. 31-5-1w2)....	Construction 50 ft. wooden truss, 20 ft. approach at each end on piles.
Melfort creek (S. 10/15-44-18w2).....	Reconstruction three 20 ft. spans on pile bents.
Maskawan creek (S. 19/24-54-18/19w4) ..	Reconstruction four 20 ft. spans and two 10 ft. culverts on pile bents,

Mosquito creek (S. 14/15-16-28w4).....	Construction 50 ft. wooden truss on double pile bent piers, planked up, three 20 ft. spans east approach and one 20 ft. span west approach, on piles.
Medicine river (near creamery).....	Construction two 50 ft. wooden trusses on double pile bent piers and 20 ft. approach at each end.
Medicine river (S. 7-38-2w5)	Construction two 50 ft. wooden trusses on double pile bent piers and abutments planked up.
McLaughlin's creek (S. 34/35-19-29w4)...	Reconstruction 20 ft. span, 12 ft. approach at each end on piles.
Nose creek (S. 24-24-1w5).....	Reconstruction 80 ft. steel span on double pile bent pier and abutment, three 20 ft. spans at west end on piles.
Nose creek (S. 16/21-25-1w5).....	Reconstruction 30 ft. span, 20 ft. approaches at south end, two 20 ft. spans at north. All on piles.
Nelson creek (River lot 1, Victoria)....	Reconstruction 20 ft. bridge.
Old Man creek (S. 12/13-53-23w4).....	Repairs, new floor, wings built to protect approach on up stream side and approaches graded.
Old Man creek (S. 5/6-53-22w4).....	Reconstruction 20 ft. span on piles.
Old Man creek (S. 24-53-23w4).....	Reconstruction 20 ft. span on piles.
S. Fork, Old Man river (n'r Pincher Ck.)	Reconstruction one new steel span 114 ft. long added to the two 132 ft. steel spans and bridge rebuilt on double pile bents and timber piers.
Pipestone creek (S. 27/28-11-30w1).....	Reconstruction 30 ft. wooden truss and 20 ft span at each end on pile bents.
Pipestone creek (S. 28/29-12-13w1).....	Repairs, extended 20 ft. at one end.
Pipestone creek (S. 15-13-32w1).....	Reconstruction 50 ft. wooden truss on double pile bent piers, planked up, two 20 ft. spans at south end and one 20 ft. span at north end. All on piles.
Pipestone creek (S. 19/24-14-2/3w2).....	Repairs, extended, two 20 ft. spans at one end.
Pipestone creek (S. 11/12-12-31w1).....	Raised and repaired.
Pipestone creek (S. 16/22-13-32w1) ...	Reconstruction 50 ft. span on double pile bent piers planked up, two 20 ft. spans at south end and one at north end on piles.
Pipestone creek (S. 3-15-3w2).....	Reconstruction five 20 ft. spans on pile bents.
Pipestone creek (S. 11/12-13-32w1).....	Reconstruction 50 ft. span on double pile bent piers, planked up, two 20 ft. spans at south end and one north end on piles.
Pipestone creek (S. 32/5-13/14-31/32w1)..	Reconstruction three 20 ft. spans on pile bents.
Pipestone creek (S. 29/30-13-33w1).....	Repairs, extended one 20 ft. span at each end.
Pipestone creek (S. 4/5-14-1w2).....	Construction five 20 ft. spans on pile bents.
Pipestone creek (S. 21-47-24w4).....	Reconstruction 30 ft. span on pile bents.
Pipestone creek (S. 24-46-23w4).....	Reconstruction 40 ft. wooden truss on double pile abutments, etc.
Point-aux-Pins creek (S. 27/28-53-22w4).	Reconstruction one 20 ft. span and two 16 ft. spans.
Point-aux-Pins creek (S. 10/15-53-22w4).	Reconstruction one 20 ft. span and two 16 ft. spans.
Pahonan creek (S. 12-48-21w2).....	Reconstruction by Fort-a-la-Corne. Indians.
Pahonan creek (S. 32/33-46-22w2)	Reconstruction 20 ft. span on pile bents.
Pie-a-pot creek (S. 7/8-11-24w3).....	Construction 20 ft. span on pile bents.
Pie-a-pot creek (S. 18/19-10-24/25w3)....	Repairs.
Pine creek (S. 14-33-29w4).....	Construction 20 ft. span on pile bents.
Pine creek (S. 17/20-31-27w4).....	Construction two 20 ft. spans on pile bents.

Pine creek (S. 4-22-29w4).....	Reconstruction 24 ft. span with 16 ft. approaches at each end. All on piles.
Pine creek (S. 11-22-1w5).....	Reconstruction three 20 ft. spans on pile bents.
Qu'Appelle river (S. 13/14-19-23w2).....	Reconstruction 40 ft. wooden truss on double pile bent piers, planked up, with 20 ft. approaches at each end.
Qu'Appelle river (S. 23/26-18-10w2).....	Reconstruction 80 ft. steel span on double pile bent piers, planked up, 20 ft. span at each end.
Qu'Appelle river (S. 33-19-21w2).....	Reconstruction 80 ft. steel span on double pile bent piers and abutment and two 20 ft. spans on south end.
Qn'Appelle river (S. 16-19-7w2).	Reconstruction 80 ft. steel span on double pile bent piers, planked up and 16 ft. approaches at each end.
Qu'Appelle river (S. 8/9-18-2w2).....	Reconstruction 80 ft. steel span on double pile bent piers, planked up, 20 ft. approaches at each end.
Qu'Appelle river (on road Loon creek to Balgonie).	Construction 80 ft. steel span on double pile bents, planked up.
Red Deer river (T. 36-28w4).....	Construction three steel spans each 125 ft. long, pile and timber crib piers with two 20 ft. spans at each end on piles.
Rat creek (S. 8/9-53-24w4).....	Reconstruction 20 ft. span.
Rat creek (S. 15-53-24w4).....	Reconstruction small bridge on piles.
Rosebud creek (S. 19/20-31-1w5).....	Reconstruction three 20 ft. spans on piles.
Rosebud creek (S. 16/17-31-1w5).....	Reconstruction three 20 ft. spans on piles.
Robebud creek (S. 16/17-27-22w4)	Repairs.
Red Willow creek (S. 11/14-40-17w4)....	Construction 20 ft. span, 12 ft. span at one end, 16 ft. at other on piles.
Rolph creek (S. 22-1-24w4).	Repairs.
Rose creek (S. 12/13-46-15w3).....	Construction 35 ft. span on piles.
Red Deer creek (S. 27/28-47-26w2)	Reconstruction 24 ft. span on piles.
Sturgeon river (S. 10-54-26w4).....	Reconstruction old bridge on pile foundation.
Sturgeon river (S. 36-54-25w4)	Repairs.
Sturgeon river (S. 10-55-24w4).....	Repairs.
Sturgeon river (S. 8/9-55-24w4).....	Repairs.
Sturgeon river (S. 25-55-24w4).....	Repairs.
Spence's coulee (S. 15-38-27w4).....	Construction two 20 ft. spans on pile bents.
Spotted creek (S. 33-40-22w4).....	Construction four 20 ft. spans on pile bents.
Stony creek (S. 31/32-29-1w5).....	Construction three 20 ft. spans on pile bents.
Stevens creek (S. 23/26-52-24w4).....	Reconstruction 20 ft. span on pile.
Sheep creek (at Okotoks).....	Repairs, replacing south span washed out by high water.
Spring creek (S. 5-56-20w4).....	Reconstruction one 16 ft. span on piles.
Slide Out Bottom creek (S. 25/30-8-24/25w4).....	Reconstruction four 20 ft. spans on pile bents.
Seven Persons creek (S. 29-12-5w4).....	Reconstruction 60 ft. steel span on double pile bents, planked up, with 20 ft. span at each end.
Souris river (S. 6-1-4w2).....	Construction 80 ft. steel span on double pile bents, planked up, two 18 ft. spans at each end, substructure completed, steel superstructure not yet completed.
Souris river (S. 31-9-15w2)	Construction 20 ft. span on pile bents.
Sweetwater river (S. 12/14-45-17w2)....	Construction 20 ft. span and 16 ft. span at each end on piles.
Snake creek (S. 30-2-24w4)	Reconstruction 10 ft. span on frame bents.
Subway bridge (S. 1-17-26w2)	Construction two 20 ft. spans on pile bents.
Snake creek (S. 15/22-2-25w4).....	Construction 10 ft. span.

Thatch creek (S. 22-45-19w2)	Reconstruction 20 ft. span on pile bents.
Trout creek (S. 7/12-12-27/28w4)	Construction 30 ft. truss with 20 ft. span at each end. All on piles.
Todd creek (S. 31-7-1w5)	Construction two 20 ft. spans on pile bents.
Tail creek (south of Buffalo lake).....	Construction 40 ft. span on double pile bents, planked up.
Wascana creek (S. 9/10-17-19w2)	Reconstruction five 20 ft. spans on pile bents.
Wascana creek (S. 31/32-17-20w2).....	Reconstruction five 20 ft. spans on pile bents.
Wolf creek (S. 4/33-15/16-9w2)	Construction 20 ft. span on piles.
Willow creek (S. 29-9-26w4).....	Reconstruction 80 ft. steel span on double pile bent piers planked up and five spans of 20 ft. on piles built to present 80 ft. steel span.
Willow creek (S. 13-12-28w4).....	Construction 125 ft. steel span on double pile bent piers and one 20 ft. span at one end, two 20 ft. spans at other end.
Whitemud river (S. 1-52-25w4).....	Reconstruction 40 ft. span on double pile bents and two 20 ft. spans at one end and old 35 ft. span at other end.
Whitemud river (S. 31/32-49-25w4).....	Construction three 20 ft. spans on pile bents.
Wolf creek (S. 1/2-41-27w4).....	Bridge 45 ft. long.
Wolf creek (S. 1/2-41-27w4).....	Bridge 45 ft. long.

SCHEDULE of Bridges under Construction but Not Completed, 1902.

Antler creek, north (S.16/17-3-30w1)....	Reconstruction, 50 ft. wooden truss on double pile abutment planked up.
Antler creek, south (S. 1-6-34w1).....	Construction, 40 ft. wooden span, on double pile bents piers planked up. 20 ft. approaches at each end on piles.
Antler creek, north (S. 36/6-6/7-31-30w1)	Construction. 50 ft. wooden span, on double pile bents planked up. 20 ft. span at one end, two 16 ft. span at the other on piles.
Antler creek, north (S. 31/6-3/4-30w1) ..	Construction, 80 ft. steel span, on double pile bents, piers planked up. Two spans of 20 ft. at each end on piles.
Antler creek, north (S. 2-3-30w1).....	Construction, 40 ft. wooden span on double pile bents, abutments planked up.
Amisk creek (S. 13/14-49-19w4).....	Reconstruction.
Amisk creek (S. 19/30-49-18w4).....	Reconstruction.
Beaver creek (S. 31-30-4w3)	Reconstruction, 30 ft. wooden truss on pile bents.
Beaver creek (S. 33-55-19w4)	Reconstruction, 50 ft. wooden truss on double pile bents, abutments planked up.
Beaver creek (S. 12/13-55-19w4)	Reconstruction, three 20 ft. span on piles.
Big hill creek ($\frac{1}{2}$ mile west of Cochrane)	Reconstruction, 30 ft. wooden truss and 16 ft. approaches at each end on piles.
Boggy creek (S. 16/17-27-2w2).....	Repairs.
Boggy creek (S. 16-29-31w1).....	Repairs.
Bow river at Calgary (Bow marsh)....	Repairs.
Bullshead creek (S. 16-12-5w4).....	Construction, 30 ft. wooden truss, 20 ft. approaches at each end on pile bents.
Bow river, Canmore (above traffic bridge)	Bank protection, driving sheet piling, building deflection dykes and cribs.
Carrot creek at St. Albert.....	Reconstruction, 20 ft. span on pile bents.
Carrot creek (S. 29/30-54-25w4).....	Construction, 12 ft. span on pile bents.
Cut Arm creek (S. 10/15-22-1w2).....	Repairs.
Cut Arm creek (S. 24/25-21-1w2).....	Repairs.
Cut Arm creek (S. 22-21-1w2).....	Repairs.
Cut Arm creek (S. 3-22-1w2).....	Repairs.
Creek (S. 7/12-33-10/11w2).....	Small span on piles.
Creek (S. 22/23-31-12w2)	Small span on piles.

Creek (S. 24/25-33-3w2).....	Construction, 20 ft. span (hewn timber) on piles.
Creek (S. 3/4-32-2w2).....	Construction, 20 ft. span (hewn timber) on piles.
Creek W. of L. Chapeau (S. 32/33-7-14w2)	Construction, 16 ft. span on piles.
Creek on road to Dunsmore's crossing of Qu'Appelle river	Construction, 20 ft. span on pile bents.
Creek (S. 7-18-9w2).....	Construction, 20 ft. span on frame bents.
Creek (S. 20-26/27-2w2).....	Reconstruction, three 20 ft. spans on pile bents.
Creek (S. 28/29-13-1w2).....	Repairs, approaches.
Creek (S. 7/12-19-10/11w2).....	Construction, 12 ft. span frame bents. Material delivered, work held over until spring.
Creek (S. 19/20-3-32w1).....	Construction, 12 ft. span on frame bents.
Creek (S. 35/26-16-26w2).....	Construction, three 20 ft. spans on piles.
Creek (S. 4/9-43-3w3)	Construction, 30 ft. wooden truss on piles.
Creek (S. 6/7-43-3w3)	Construction, 30 ft. wooden truss on piles.
Creek (S. 25/30-42-2/3w3)	Reconstruction.
Creek (S. 12-45-27w2).....	Reconstruction.
Creek (S. 26-54-23w4).....	Reconstruction, 20 ft. span on piles.
Creek (S. 22/27-49-25w4)	Small span on piles.
Creek (S. 9-3-26w4).....	Reconstruction.
Creek (S. 14-52-24w4)	Reconstruction.
Creek (S. 2/3-52-24w4).....	Repair.
Creek (S. 3-3-26w4).....	Construction.
Creek River lot 21, Edmonton.....	Repair.
Creek (S. 5-53-22w4).....	Repair.
Creek (S. 4-53-22w4)	Repair.
Creek north of Coal creek.....	Construction. Old Rodberg bridge to be constructed here.
Creek on Edmonton trail east of Olds Creek, Edmonton to Athabasca Land- ing.....	Repair.
Creek, River lot No. 20, Edmonton....	Repair.
Creek, River lot No. 29, Edmonton....	Reconstruction.
Creek, Layton coulee (S. 12/13-3-26w4) ..	Construction.
Creek (S. 16-46-23w4).....	Reconstruction.
Creek (S. 29-46-23w4).....	Reconstruction.
Creek (S. 23/24-6-30w4).....	Reconstruction.
Can. N. W. Irrigation Canal (S. 5/6-8-20w4)	Construction, two 20 ft. spans on piles.
Can. N. W. Irrigation Canal (S. 31/32-7-21w4)	Construction, two 20 ft. spans on piles.
Can. N. W. Irrigation Canal (S. 23/22-8-21w4)	Construction, two 20 ft. spans on piles.
Deer creek (S. 6-29-7w2).....	Reconstruction, 40 ft. wooden truss on pile bents, piers planked, 20 ft. approaches to each end.
Deep creek (S. 36-54-22w4).....	Construction, 20 ft. span on pile bents.
Egg Lake creek (S. 17/18-55-24w4).....	Construction, driving piles only.
Egg Lake creek (S. 19/30-55-24w4).....	Construction, driving piles only.
Fulton's creek, River lot 45, Edmonton.	Reconstruction, 22 ft. span on pile bents.
Fish creek (S. 3/4-22-1w5).....	Reconstruction, 50 ft. wooden truss on double pile bents, piers planked up, 20 ft. approaches to each end.
Gap creek (S. 30-11-26w3).....	Construction, 50 ft. wooden truss on double pile bent, abutment planked up.
High River, Thompson's creek (S. 16-21-28w4)	Repairs. New pier and west abutment.
Irwin creek (S. 20/29-26-3w2).....	Reconstruction, 16 ft. span on pile bents.
Jumping Pound (S. 30-24-4w5)	Reconstruction, 60 ft. wooden truss on double pile bent pier and abutment, five 30 ft. spans at west end on piles.
Waterton, Kootenai river, north fork (S. 17/18-4-28w4).....	Construction, 50 ft. truss on double pile bent, abutment sheathed up.
Lee creek (S. 31-2-25w4).....	Reconstruction, 50 ft. wooden truss on double pile bent, piers planked up. Four 20 ft. spans at north end and one 20 ft. span at south end on piles.

Long creek (S. 20/21-8-14w2)	Reconstruction, 36 ft. wooden truss, 20ft. span on south end on piles.
Little Red Deer river (S. 19/30-35-1/2w5)	Repairs.
Little McKay creek (S. 34-10-28w3).....	Construction, 24 ft. span on pile bents.
Little Mill creek (S. 16/21-52-24w4).....	Repairs.
Little Mill creek (S. 22/23-52-24w4).....	Repairs.
Little Mill creek (S. 16-52-24w4).....	Repairs.
Lee creek (S. 4-2-26w4).....	Reconstruction, 20 ft. span on piles.
Lee creek, Cardston	Temporary bridge
Moose Mountain creek (S. 33/4-3/4-2w2)	Reconstruction, 36 ft. span and 20 ft. span at each end on piles.
Moose Mountain creek (S. 23/24-7-4w2).	Repairs.
Many Bone (S. 7/8-16-16w2).....	Reconstruction, 20 ft. span, 16 ft. span at one end and 12 ft. span at other (held over).
Maple river (S. 12-44-20w2).....	Reconstruction, 20 ft. span on pile bents (held over).
McKay creek (S. 2/3-12-1w4)	Construction, 50 ft. wooden truss on double pile bents, piers planked up. One 20 ft. span at one end, two 20 ft. spans at the other end on piles.
Nose creek (S. 25/26-25-1w5).....	Construction, six 20 ft. spans on piles.
Pipestone creek (S. 7-13-31w1).....	Reconstruction, 36 ft. wooden truss on double pile bent piers planked up. Two 20 ft. span at north end. All on piers.
Pipestone creek (S. 25/30-13-33/34w1)...	Reconstruction, 40 ft. wooden truss on double pile bents, 20 ft. approaches at each end.
Pipestone creek (S. 3-15-3w2).....	Reconstruction, five 20 ft. spans on pile bents.
Pipestone creek (S. 7/12-14-1/2w2)	Repairs. Extended two 20 ft. spans at one end.
Pot Hole creek (36-5-22w4).....	Construction, two 50 ft. wooden trusses on double pile bent piers planked up with three 20 ft. spans at east end and one 20 ft. span at w. end on piers.
Sturgeon river (S. 4/9-56-23w4).....	Reconstruction, six 20 ft. spans on piles.
Stony creek, north-west of Pelly	Repairs.
Stony creek (S. 18/19-7-29/30w1).....	Construction, four 20 ft. spans on pile bents.
Squawhead creek (S. 11/14-16-2w2).....	Construction, six 20 ft. spans on pile bents.
Towatinow river, Athabasca Landing trail	Rebuilt.
Vermillion river, on road Edmonton to Athabasca Landing	Reconstruction, 50 ft. span on double pile bents, planked up, with 20 ft. span at each end.
Whitesand river (S. 13/14-31-1w2).....	Reconstruction, 50 ft. truss on pile abutment.
Washaway creek (S. 34/35-51-15w4)....	Construction, 20 ft. span on pile bents.
Waskassa creek (S. 9/16-38-27w4).....	Reconstruction, three 20 ft. spans on pile bents.

In addition to the bridges above referred to as belonging to the Department, the bridge owned by the Dominion Government over Old Man river at Macleod, and that over the Belly river at Lethbridge, were destroyed by the floods. Both of these bridges were large structures which cost large sums of money when erected and their loss caused serious inconvenience to the public. The matter of their reconstruction has been under consideration for some time and, under authority of an Order of the Governor General in Council, the question of replacing the destroyed structures by permanent steel bridges on concrete foundations has now been delegated to the Territorial Department of Public Works.

Among the bridges included in the foregoing schedule the following are worthy of special mention:

Bridge over the Red Deer river at Tindastoll.

This bridge which was mentioned in last year's report was completed early in 1902 and opened for traffic before the ice went out of the stream. The new bridge, as well as the bridge over the Red Deer river at the town of Red Deer, withstood the unusual floods of last season without damage.

Bridge over High river at Alley's ford, section 17 township 20 range 28 west of the fourth meridian.

Mention was made of this bridge in Departmental report of 1901. Steel superstructure was erected early in 1902 and the bridge was opened for traffic when the ice broke up. The structure withstood the freshets of 1902 without damage.

Bridge over Sheep river at Okotoks.

This bridge was seriously damaged by floods in June, the approaches and part of the pile trestle between spans being carried away. Repairs were made, but the more serious freshet which occurred later in the season again washed out the approaches and one of the spans of the bridge was carried down stream about half a mile. Later in the season this span was replaced, the whole structure being raised about one foot and the approaches rebuilt, leaving the bridge in much better condition than it had been for several years. While the site is not a desirable one, owing to the fact that about one-half of the channel is usually blocked with saw logs, when as a matter of fact the whole section of the stream should be open to pass the water. Under normal flood conditions several years' service can be taken out of the old structure, but floods such as those experienced last season will be likely to result in further trouble at this point.

Bridge over Willow creek, at the crossing of the Calgary-Macleod trail.

At this point the creek partly changed its course, leaving the bridge by some three or four hundred feet, and the features of the old crossing were thereby so changed that it was not considered advisable to reconstruct the bridge at that point. It was, therefore, moved some half mile farther up stream, an 80 foot truss being taken from the old crossing and another of the same length provided, with a 120 foot pile approach, thus providing a first class crossing at a safe height above high water and at a point where further damage from floods is not likely to occur.

Bridge over Willow creek on Claresholm-Lyndon trail.

The construction of this bridge, which consists of one 125 foot steel truss with 60 foot pile approaches, was undertaken after the July floods. Work was completed before the end of the season and a safe and reliable crossing provided at a point where very serious inconvenience has always in the past been experienced during periods of high water.

Bridge over Bow river at Canmore.

It was decided to reconstruct this bridge because the old structure was so decayed and unsafe that it seemed clear that it could not possibly stand another season's high water. The work was commenced early in 1902, but owing to our inability to procure the necessary timber in time to complete the work before the period of high water, some inconvenience was occasioned by the freshets of June and July, which washed out the old structure before the new was completed. The new bridge, which consists of two 112 foot Howe truss spans on substantial pile and crib piers, with a 24 foot approach at each end, was completed immediately after high water. The north bank above the bridge site was badly washed away during high water, but will be protected by sheet piling and dykes, which we are putting in this winter.

Bridge over south fork of Old Man river, north of Pincher Creek.

This bridge consisted of two 102 foot pin connected steel trusses. The east shore pier and the centre pier were washed out and collapsed during the period of high water in June, the east truss being let down into the stream and so twisted that it was necessary to replace the four end posts. It was decided to put in a new substructure immediately below the old crossing and add another span to the bridge, one 114 foot pin connected truss being obtained for the purpose. This new span, together with the two old ones, was erected on a new substructure of our standard design, with a 60 foot pile trestle approach at each end, and at a safe height above high water mark to prevent the possibility of further damage by floods.

Bridge over Waterton (Kootenai) river near Stand Off.

The superstructures of this bridge which supported two 120 foot pin connected trusses were washed out and collapsed letting the south span into the river. After the June flood an effort was made to raise and secure the trusses, but the last rush of water in August swept everything away, there being nothing left to indicate that there had ever been a bridge at that point. One of the steel spans was rolled three miles down stream. Two spans were recovered and out of the parts, when straightened, we were able to build one span. Two additional steel spans were then provided, increasing the length of the steel superstructure by 102 feet. Substantial pile and crib piers were put in with 100 feet of pile trestle on the flat at the south end of the bridge, and the trusses raised well above high water mark.

Bridge over Fish creek at crossing of the Calgary-Macleod trail.

The damage sustained by this bridge during the freshets in June were repaired in a temporary manner, but the structure was partly carried away by floods later in the season, it being here demonstrated, as in the case of several other bridges on western streams, that nothing but a truss span, or spans, of sufficient length to permit the passing of drift wood without obstruction could be of lasting service. An 80 foot steel truss was, therefore, placed over the main channel with one 24 foot span pile and timber approach at the south end, and three at north end of 80 foot span, the latter being placed on substantial pile and timber piers.

Bridge over Jumping Pound creek at Butler's crossing, section 4 township 26 range 4 west of the fifth meridian.

A 100 foot Howe truss with 20 foot span timber approach at each end was erected at this point to provide a crossing to enable settlers on the north to reach Cochrane, their market town. The structure was completed about midsummer and has been in service ever since.

Bridge over Jumping Pound creek at Stuart's crossing, township 24 range 4 west of the fifth meridian.

The old structure at this point, which was partly washed away by the freshets early in the season, is being raised and made more substantial by the addition of a 60 foot timber truss at the east end.

Bridges on the Qu'Appelle river.

Five 80 foot steel trusses were erected on the Qu'Appelle river during the past season at the following points: One at Warren's crossing, one at Hyde's crossing, one on the main trail from Loon creek to Balgonie, one at Osler's crossing and one at Lumsden.

These bridges are all on main roads leading to market points, and enable large settlements living north of the river to cross at the points mentioned at any time during the year.

CONSTRUCTION AND MAINTENANCE OF ROADS.

The unusually wet condition of the early months of the summer rendered it almost impossible to do anything in the way of road improvement, and about midsummer, when the conditions in this respect were somewhat improved, the unusual demand for labour and horses to aid in saving the bountiful crop made it almost impossible to take advantage of the dry season to complete work which it had been impossible to undertake in the earlier part of the year.

The sum of \$32,534.91 was expended in connection with road improvements during the season, but the work done was of necessity of a somewhat makeshift and patchy character and consisted largely in an effort to fill up holes or provide means to get around sloughs and low places which had been rendered impassable in the earlier part of the year.

Road making is probably the most difficult problem with which the Department has to deal. The general conditions relative to this subject have been referred to at length in previous reports and very little can be added to the information therein contained. However, each year makes it more apparent that the efforts of the Department should be centralised in attempting to provide main roads only, and it is again suggested that if it is possible to lay down on the map of each district the main roads required in connection with the development of such district, some effort might be made to put such main highways in fairly good condition. The ever changing conditions resulting from the opening up of new settlements and the extension of railway lines seem to put the possibility of defining main highways out of reach for the present;

but it is certain that a continuation of the present methods in attempting to improve roads without having a definite scheme to work to, must result in poor returns for the expenditure devoted to this class of work.

During the year a new edition of the Manual of Instructions for the guidance of Overseers of Local Improvement Districts and foremen employed in making road improvements was issued, and in revising this manual an effort was made to so extend the instructions as to improve the system previously followed in dealing with this class of work. It must again, however, be pointed out that the time has come when it would be well for the Department to consider the question of employing an instructor with reference to road work who would visit the different localities and, by graphic method, endeavour to improve the knowledge of our overseers and foremen with regard to the matter of road making.

DRAINAGE.

The unusual rainfall of the year has directed the attention of the Department to the necessity for drainage in districts where this matter had not been considered of importance, and the Department is now face to face with the necessity of dealing with the subject of drainage in portions of the Territories which previously were considered as deficient in necessary rainfall.

Applications for the construction of drainage ditches have been filed from all parts of the Territories, and it seems quite evident that in the near future a very considerable sum of money must be expended on this important work. The difficulty of dealing with the subject on a fair basis was specially referred to in last year's report, and it is clear that, before extensive drainage work can be undertaken, additional legislation relative to this matter must be enacted.

In many districts land owners have signified their willingness to join with the Government in constructing necessary drainage ditches, but under the existing law it is of course impossible to provide any means of assessment by which all property benefited can be made to bear its fair share of the actual expenditure.

The steam ditching machine referred to in last year's report was put to work early in the season in Northern Alberta, east of Fort Saskatchewan, and did very satisfactory work. Later in the season a second machine was ordered and put to work, just before it froze up, on a large ditch required in the Edmonton district. Orders were also given for three additional machines of this kind which it is proposed to operate in North-East Assiniboia, Saskatchewan and Central Alberta. With these machines it is thought that the larger and more important ditches can be undertaken during the coming year and completed within reasonable limits of cost. The ditches, however, which it is proposed to construct with these machines will drain large areas of private property, and it is only fair that owners of such property should bear a fair proportion of the cost of the work.

The question of drainage is, of course, closely allied with the matter of road improvement, because in areas where drainage is needed it is not possible to construct roads until the surface water is run off. The Government are therefore particularly interested in the matter from that

standpoint, and, as it is possible to state with a fair degree of accuracy the areas of roads which will be drained by a ditch in any district, it is thought that legal machinery can be provided under which the proportion of cost between the Department and the owners of adjacent lands which will be benefited can be clearly defined, and the matter of the assessment and collection of the proportion of cost based upon such benefit clearly determined.

The usual schedule of ditches and drains applied for is appended.

SCHEDULE of Ditches and Drains for which Applications have been made for 1902.

S. 55/56-20w4.....	Mud lake, on Victoria-Fort Saskatchewan road.
S. 54-26w4.....	To drain roads in township. To carry off overflow of water from Langdon flowing well.
S. 8/17-23-1w5.....	To drain sloughs across road allowance.
S. 36/1-48/49-27w4.....	To drain road in these townships.
S. 33/34-48-27w4 and S. 4/3-49-27w4.....	To drain road in the Wetaskiwin district.
Between Leech lake and Little White-sand river.....	To drain overflow of water from Leech lake on Yorkton-Broadview main road.
T. 41-24w4.....	To drain slough at Urquhart, Alta., north and south through western part of T. 41-24w4.
S. 14-45a-22w2.....	
S. 9/16-45a-22w2.....	
S. 33/34 and 19/30-40-22w4.....	To drain sloughs.
S. 3, 4, 9/16-37 and S. 22, 27/34-36-6w3...	To drain sloughs.
S. 27/28-23-1w5.....	
S. 3/4-54-24w4.....	
S. 35/36-54-24w4.....	To drain road allowance.
S. 12/18-46-26/27w4.....	
S. 34/35-47 and S. 2/3-48-26w2.....	To drain sloughs on road allowance.
S. 28, 29/30-57-16w4.....	
S. 6/1/7/12-48-26/27w2.....	
S. 20/29, 19/30-47-23w4.....	
S. 10-19a and S. 3-19-1w2.....	
S. 32/5-25/26-3w2.....	
S. 22-14-26w4.....	
N. W. $\frac{1}{4}$ S. 10-54-23w4.....	To drain slough.
S. 19-40-26w4.....	To drain pond in village of Lacombe.
S. W. $\frac{1}{4}$ S. 30-44-21w4.....	To drain slough on road allowance. In village of Grenfell.
S. 5-52 and S. 32-51-14w4.....	
S. 6/7-36-28w4.....	To drain slough on road allowance.
S. 9/10-38-27w4.....	
S. 12-46-26w2.....	To drain road from Wolseley east to Summerberry.
S. 34/3-55/56-25w4.....	To drain Dowling's lake.
T. 56-24w4.....	To drain lake at corners S. 26, 25, 24 and 23.
T. 45-21/22w4.....	
S. 25/26-51-25w4.....	
S. 15/16-37-27w4.....	
S. 12-27-4w2.....	
S. 11/12-29-16w2.....	
S. 22/27-21-13w2.....	
S. 14/23-38-27w4.....	
S. 10/15-20-14w2.....	
S. 8/9-53-23w4.....	
S. 20-33-1w5.....	
S. 10-27-5w2.....	
S. 2-20-8w2.....	

S. 4-37-28w4	To drain road allowance.
S. 22/23-37-28w4	
S. 2/3-37-28w4	Prince Albert Settlement.
River lots 51/52 to river.....	To drain road allowance.
S. 24/25-37-28w4	To drain Clearwater creek and Blackmud marsh.
S. 8/17, 9/16-50-24w4	
S. 29/32-53-23w4	
S. 33/34, 27/28-52-25w4	
S. W. $\frac{1}{4}$ S. 31-17-1w2	On S.W. $\frac{1}{4}$ said section.
East of S. 25-16-3w2	
S. 19/30-20-27w4	
S. 5, 8, 9/17-19-28w4	
S. 13/18-41-26/27w4	
North S. 35-19-29w4	
S. 24-24-4w2	Village of Weyburn.
S. 21-8-14w2	
T. 48-24/25w4	
North boundary S. 19-45-22w4	To drain Lindsay slough.
N.E. $\frac{1}{4}$ S. 5-53-23w4	
S. 16/17, 8/17-54-23w4	To lower the waters of Duck lake, and adjoining T. 43-3-3 and T. 44-2-3.
T. 44-3w3	To drain Hay lake trail.
S. 1/36-51/52-24w4	To drain township line.
S. 15/16, 22/21, 27/28-26-4w2	
Tp. 51/52-24w4	

FERRIES.

The ferries operated and installed during the year were as follows :

Bow river at Blackfoot reserve.

Old Man river at Macleod.

Red Deer river at Steerford.

Saskatchewan river (north) at Battleford (steam).

do	at Carlton.
do	at Clover Bar.
do	at Elbow, near Henrietta.
do	at Fort Pitt.
do	at Fort Saskatchewan.
do	at Isbister's.
do	at west of Rosthern.
do	at Wingard.
do	at Victoria.

Saskatchewan river (south) at Adams'.

do	at Batoche.
do	at Fish Creek.
do	at Hague.
do	at Medicine Hat.
do	at Saskatoon.
do	at St. Laurent.
do	at St. Louis.
do	at Saskatchewan Landing.

It will be noted that the schedule above includes 21 ferries, operated by the Department, which is an increase of 3 over the preceding year. The excessive floods experienced on practically all streams upon which ferries are operated caused serious inconvenience in their operation, and loss of plant in many cases. Owing to the loss of the Dominion Government bridges across the Old Man river at Macleod and over the Belly river at Lethbridge, it was found necessary to install temporary ferries to provide for the public needs during the period of high water. The operation of these ferries was discontinued as soon as it was possible to ford the streams and the necessity for them will, of course, cease after the reconstruction of the bridges referred to,

FIREGUARDS.

It is gratifying to be able to report that the western portion of the Territories practically escaped any serious fires during the year. In Western Assiniboia one or two extensive fires took place, the most serious of which came into the Territories across the international boundary and burnt over a large area of country, causing serious inconvenience to the ranchers.

In the early part of the year a contract was entered into with the C.P.R. Co., under which the Department undertook to construct a proper fireguard along such portions of the company's main line and branches in the Territories, as was thought necessary. Under that contract we completed 1,751 miles of fireguard. This guard consisted of 16 furrows, ploughed to a depth of at least 4 inches and situated 300 feet from the track. Under the contract the company were required to burn out the grass between the track and this guard before the season for fires had arrived, and, although that part of the contract was not very thoroughly carried out, the fact that no serious fires were started by sparks from locomotives is evidence that the system proposed by the Department, and carried out under this contract, will have a marked effect in reducing the list of fires started by railway locomotives. In addition to the fireguards provided along the railway line the Department completed 898 miles of guard, a large proportion of which is situated in Western Assiniboia and Southern Alberta. The appended schedule will show the location and mileage of the guards completed.

FIREGUARD Contracts, 1902.

Canadian Pacific Railway, Main Line.

Calgary to Gleichen.....	117.50	miles
Gleichen to Cluny.....	18.25	do
Cluny to Bowell (incomplete)	28.75	do
Bowell — west.....	13	do
Bowell to Medicine Hat.....	30	do
Dunmore to Irvine (to be ploughed in spring).....		
Irvine to Cummings.....	34	do
Cummings to Forres.....	12	do
Forres to Kincorth	20	do
Maple Creek to Cooley.....	21	do
From S. 6-12-23w3 to mileboard 937, two miles east of Gull Lake	22.625	do
Swift Current to Moose Jaw	224	do
Moose Jaw to Pasqua.....	12.80	do
Pasqua to west boundary of T. 18-16w2.....	105	do
West boundary of T. 18-16w2 to west boundary of T. 18-13w2.....	36	do
West boundary of T. 18-11w2 to Wolseley.....	20.50	do
Wolseley, three miles east	6	do
Three miles east of Wolseley to Summerberry	10	do
Summerberry to Oakshela.....	31.50	do
Oakshela to Broadview.....	18	do

Calgary & Edmonton Railway Line.

West Macleod to Leavings.....	22.50	miles
Leavings to Claresholm.....	20	do
Claresholm to Cayley (incomplete).....	66	do
Cayley to High River	18	do
High River to Calgary	8	do
Through section 17 and part of S. 7-20-29w4.....	3.33	do
Calgary Junction to Beddington.....	10	do
Beddington to Airdrie.....	20	do
Crossfield, south.....	4	do
Crossfield to Carstairs.....	22.50	do
Carstairs to mileboard 42	5	do
Mileboard 42 to mileboard 45.....	6	do
Didsbury, north	4.468	do

FIREGUARD Contracts, 1902.—*Continued.**Crow's Nest Pass Railway Line.*

Dunmore to Seven Persons.....	32	miles
Seven Persons to Burdette.....	60	do
Burdette to Grassy Lake.....	16	do
Grassy Lake to Lethbridge (incomplete).....	104	do
Lethbridge to Slide Out.....	42.50	do
Belly River to Pearce.....	4.50	do
Pearce to Macleod Station (Haneyville).....	15.50	do
Macleod Station (Haneyville) to Brockett.....	38.75	do
Brockett to Pincher Creek.....	18	do
Through sections 12, 13 & 14 T. 7-1w5	6	do
Cowley to Burmis (to be done in the spring).		

Soo Line.

Pasqua to Drinkwater.....	23	miles
Drinkwater to Milestone.....	64.50	do
Milestone to Estevan.....	101.43	do

Qu'Appelle, Long Lake and Saskatchewan Railway Line.

Section 4-32-4w3 to S. 36-35-4w3.....	40	miles
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Alberta Railway & Coal Company's Line.

Lethbridge to international boundary.....	126.25	miles
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St. Mary's River Railway Line.

Spring Coulee to Pot Hole.....	24.75	miles
Pot Hole to Stirling (incomplete).....	24	do

WORK done on Fireguards in 1902.

Rush Lake guard (reploughed).....	18	miles.
From Calgary and Edmonton Railway line west on north boundary of T. 26-1w5 (reploughed)	7.50	do
From C.P. Railway, north between R. 19/20w4 (reploughed) ..	19.78	do
From Nanton Station to High River, west of C. & E. Railway (backset)	20	do
Through T. 12-18w3 (reploughed).....	7.50	do
From north to south Fork of Sheep Creek, on line between R. 2/3w5 (reploughed).....	5.25	do
From S. 6-12-22w3 to S. 30-10-20w3 (reploughed)	18	do
From C. & E. Railway to N.W. corner of S. 36-26-29w4 (reploughed)	4.25	do
From north boundary of T. 24 on line between R. 25/26w4 to north boundary of T. 27 (backsetting).....	18.7	do
From north boundary of T. 27 to Kneehill creek (reploughed) ..	12.375	do
On east and south boundaries of T. 19-28w4. \$66.00 spent in day labour (ploughing).....		
From C. & E. Railway on north boundary of T. 16 to west boundary of R. 24 (12 miles ploughed remainder reploughed) ..	23.50	do
On east boundary of T. 22/23 and 24-23w4 (reploughed).....	16.75	do
From west boundary of R. 6w4 east on line between T. 9/10 (backset)	49	do
From Swift Current creek east to Rush Lake guard (ploughed) ..	9	do
From C.P. Railway on the line between R. 15/16w3 north to Saskatchewan river (backsetting)	36	do
Through Ts. 11, 12 and 13 on line between R. 24/25w4 (backsetting).....	22	do
The Stair fireguard (reploughing).....	10.50	do
Gull Lake fireguard (reploughing).....	15	do
From S.E. corner of S. 6-15-13w3 in a southerly direction to Pilchie's creek (reploughing).....	41	do
From Howell Station south to Saskatchewan R. (reploughing) ..	11	do
Crane Lake fireguard (reploughing).....	22	do
From Crane Lake in S. 32-13-24w3 to lake in S. 22-13-26w3 (reploughing)	12	do

From Bitter Lake to C.P. Railway (discing)	7.50	do
On north boundary of T. 26 through R. 25, 26, 27 and 28w4 (reploughing)	27.80	do
From south boundary of T. 15 north to Bow river on line between R. 24/25w4 (reploughing)	35	do
From N.W. corner of S. 19-18-28w4 south to the S.W. corner of S. 18; east 1 mile, south to the S.W. corner of S. 29, then south-east to the south line of T. 17, between S. 3/4-17-28w4 (backsetting)	11	do
On the north, east and south sides of T. 20-27w4 (backsetting)	18	do
From Swift Current creek at the N.E. corner of S. 21-19-13w3 west to the boundary of T. 19-15w3 (ploughing)	15	do
From Bowell in a north-easterly direction to the Saskatchewan river (backsetting)	18	do
From Saskatchewan river south through Whitla to Seven Persons coulee (ploughing)	22	do
From Crow's Nest Pass Railway line to Belly river on east boundary of Piegan Indian reserve (ploughing)	25	do
Around T. 29-15w2 (ploughing)	24	do
On south boundary of T. 20-25/26w4 (ploughing)	8.50	do
Across R. 7w2 between T. 14/15 (reploughing)	6	do
Around T. 6-7w2 (ploughing)	24	do
From N.W. corner S. 35-6-29w3 to N.E. corner S. 36-6-29w3, then south on line between R. 28/29 to S.W. corner of S. 30-4-28w3 (ploughing)	16	do
On line between T. 22/23 across R. 26, 27, 28w4 (ploughing)	18.30	do
On north line T. 18 across R. 25, 26, 27w4 (ploughing)	17	do
From north side of T. 18-28w4 south to Little Bow river (ploughing)	5.75	do
On road allowance from N.W. corner of S. 9-20-1w5 south through T. 19 to Tongue creek (ploughing)	5.50	do
From south fork of Sheep creek between S. 8/17-20-2w5 (ploughing)	6.50	do
From Big Stick lake to Many Island lake (ploughing)	34	do
From Four Mile coulee to Battle creek (ploughing)	5.75	do
From Old Man river to Belly river on the road allowance one mile south of north boundary of T. 9-22w4 (ploughing)	6	do
From Crow's Nest Pass railway line north to Belly river on line between R. 18/19w4 (reploughing)	7	do
From Crow's Nest Pass railway north to Belly river on line between R. 20/21w4 (ploughing)	8	do
From Crow's Nest Pass railway north to Belly river on line between R. 19/20w4 (ploughing)	9.25	do
From Crow's Nest railway south to Alberta Railway & Coal Company's line on line between R. 18/19w4 (ploughing)	22	do
On north boundary of T. 23-28w4 (ploughing)	6.2	do
Between Saskatchewan and Battle rivers (ploughing)	12	do
From north boundary of T. 1 through centre of T. 2, 3, 4, 5-21w4 to St. Mary's River railway line (ploughing)	28.75	do
On line between R. 11/12w3 from C.P.R. south to Aikins creek (ploughing)	11	do
On the north and east sides of T. 4-3w2 (reploughing)	9	do
In T. 35/36-3w3 (ploughing)	18	do

WATER SUPPLY.

The great importance of the work carried on by the Department in attempting the correction of nature's shortcomings in the way of water supply for domestic purposes has been dealt with at considerable length in previous reports, and the conditions affecting this class of work have been clearly pointed out. The large influx of settlers into districts known to be seriously deficient in water supply must, in the near future, largely increase the demands for this class of work. The work undertaken during the past year is set forth in the report of Mr. William Duff, superintendent of well boring.

REGINA, ASSA., *December 31st, 1902.*

J. S. DENNIS, Esq.,

Deputy Commissioner of Public Works,
Regina.

SIR,—I beg to submit my report with reference to well boring operations conducted during the year ending December 31st, 1902.

Eight well boring machines were in operation for part of the season, consisting of six Austin machines, which bore to a depth of 300 feet with five inch casing, and two Ohio Jetting machines with two one-half inch casing, distributed at the following points throughout the Territories:

No. 1, Austin machine, in Souris district.

No. 2, Buck Lake and Grand Coulee districts.

No. 3, Maryfield and Cannington Manor districts.

No. 4, Wolseley district.

No. 5, Pasqua and Rouleau districts.

No. 6, Saskatoon Local Improvement district.

No. 7, Ohio, Maple Creek, Pense, Oxbow district.

No. 8, Ohio, Lethbridge Local Improvement district.

The following is a list of work done by each of these machines:

No. 1 machine started work in the village of Carievale, S. 31-2-31w1, and bored to a depth of 251 feet and got a good supply of water, also a supply of gas. This well ran over at about 4 feet above the surface through a 1½ inch pipe. S. 6/35-2/3-33w1, Glen Ewen (no water), sunk to a depth of 275 feet and 175 feet of 5 inch casing. Village of Alameda, S. 1-4-3w2, 240 feet 5 inch casing, 150 feet water.

No. 2 Austin machine in charge of Mr. Thos. Spence, was operated in the Buck Lake district under special instructions as to work to be done and payment of same. Messrs. Boyle and Tucker were to provide teams and help, and move machine, also board Mr. Spence while at work. After operating the machine for some time Mr. Spence transferred the machine to Mr. Tucker to operate. The following work was done: S. 33/34-15-19w2, Buck Lake, 300 feet deep, no water, 227 feet 5 inch casing. S. 15/16-17-21w2, Coulee Station, 128 feet, 108 feet 5 inch casing, 45 feet water. S. 14/15-19w2, Buck Lake, 250 feet, no water. The same material was reached in this well as the previous one in the same district.

No. 3 Austin machine in charge of Mr. William H. Ward, was operated in the Maryfield district on S. 32/4, 10/11-30w1, to the depth of 305 feet with 290 feet 5 inch casing and obtained no water. The next operation was on S. 12/13-9-1w2, near Cannington Manor, to a depth of 325 feet with 300 feet of 5 inch casing and obtained 250 feet of water.

No. 4 machine, in charge of Mr. Fred Doman, was operated in the Wolseley district on S. 11/12-17-10w2, town of Wolseley. S. 35/36-17-9w2, Rose Lane school; also at Poplar Grove schoolhouse, S. 11/12-19-9w2, Rosewood schoolhouse.

No. 5 Austin machine was sent out in charge of Mr. Edward Brooks to Pasqua district. After working a few days he sent in his resignation and I was instructed to make arrangements to have the machine shipped back to the warehouse at Regina. On October 14th this machine was taken to Rouleau, to put down public wells in that town, in charge of Messrs. A. W. Dalgleish and G. Ball, these parties undertaking to have the machine and all its parts transported to Rouleau to operate on one of the public streets of that town and return the machine in good order and repair to Regina at the completion of this work.

No. 6 Austin machine, sent out in charge of Mr. Henry Martensen, in the Saskatchewan Local Improvement District, to commence operations at Henley, S. 1-31-4w3, then on S. 19/24-30-4/5w3, then in the village of Dundurn. After operating the machine for some time and having the misfortune to lose two of his horses, he sent in his resignation and the machine was then given in charge of Mr. A. L. Warner to operate.

No. 7 Ohio machine was sent out to Maple Creek in charge of Mr. John Reynolds to deepen the well in that village. After the completion of the work there it was next operated in Pense village to a depth of 450 feet. The next place it was operated was in the village of Oxbow, and after completing work in that district the machine was shipped to Moose Jaw for further instructions. It was then decided to discontinue the use of these machines, the hole put down with it having proved too small to be serviceable.

No. 8 Ohio machine, in charge of Mr. David Duff, was operated in the Lethbridge Local Improvement District, in the village of Sterling, the village of Raymond and on S. 25/26-8-21w4. It was also decided to discontinue the use of this machine and have it shipped to Regina.

There was on hand in stock in the warehouse at the beginning of the season, after machines had received their first supply: 238 feet of 5 inch heavy casing; and we received from Mackenzie & Milne Company during the season—4,831 feet 4 inches of five inch casing, 3,007 feet of two and a half inch casing galvanised, 4,056 feet of one and a quarter inch galvanised iron pipe, 2,140 lbs. of seven-sixteenths galvanised iron rods, 150 lbs. of seven-sixteenths galvanised couplings.

The machines were all supplied with a pumping attachment to test the supply of water in each well before leaving same in order to determine the quantity and quality of water obtained in each case. They were all put in thorough good working order during the winter so that there would be no delay during the season.

I would suggest that something should be done in regard to districts taking charge of and keeping in repair pumps, pumphouses and wells after they have been put down and tested as to the quantity of water. There are a great many wells throughout the country which from time to time are reported out of order, and, when a man is sent out to see what is wrong he finds a handle is broken, bolts taken out, base of pump broken and such like, and one man could not begin to keep them all in order. These things do not break of themselves and it causes a lot of trouble and also needless expense, largely due to wilfulness or carelessness of the parties who should be most interested in keeping the pumps in order.

Among the wells sunk to a depth of 300 feet, and which should be deepened, are the following,

- 3 wells in the Moose Jaw District;
- 1 well in Pense village;
- 1 well south of Pense, S. 7/13-16-21/22w2.
- 2 wells north of Grenfell;
- 1 well at Kenlis;
- 1 well at Maryfield;
- 1 well at Glen Ewen;
- 1 well at Stirling;
- 4 wells in the Lethbridge Local Improvement District;
- 2 wells in the Buck Lake district.

Pumps have been put in all wells where a supply of water has been obtained, and pumphouses erected over same to protect them for the winter.

There was not as much work done this year as I would have liked partly owing to wet weather in the early part of the season, which made it very difficult to have the machines moved from place to place, and partly owing to the inexperienced workmen operating the machines. There are now in several districts throughout the Territories a number of wells put down and cased with 5 inch and 6 inch casing to a depth of 300 feet, and for the purpose of deepening these wells, and to carry on this work to a finish so that water can be obtained, it would be well to consider the advisability of heavy well machinery to accomplish this important work.

There are also several wells in the Territories where there is a good supply of water, but, owing to the depth, settlers are unable to use them for want of a power pump. Some among them that are badly needed are :

No. 56, Moose Jaw district, S. 16/17-18-25w2 ;

No. 87, Moose Jaw district, S. 9/16-18-26w2 ;

No. 54, Wolseley district, S. 10/11-19-10w2 ;

No. 112, Souris district, S. 34-2-34w1 ;

No. 114, Souris district, village of Alameda ;

No. 115, Cannington district, Cannington Manor.

At these points I recommend that a windmill pumping plant be provided.

I was unable to make as full an inspection of the wells in the several districts as should have been done, owing to other urgent work on hand, but will do so at as early a date as possible.

Owing to the way in which the country around Moose Jaw, Pasqua, Belle Plain, Pense, Regina, Rouleau, Milestone and Yellowgrass is settling up, and the scarcity of water in these places for new settlers, I would recommend to you the advisability of purchasing at least two revolving process machines, with attachments to work pole tools in the event of encountering boulders in the progress of the work, capable of working to a depth of from 1,500 to 2,000 feet, with a 40 foot derrick for same. There are a good many of the tools used on a rig of this kind in stock in the warehouse that could be utilised for this work.

I would further recommend, in the event of the purchase of one or more of these machines, that gasoline, instead of steam power, be used for this work, as it would do away with the services of a qualified engineer, and it would leave the water used for steam purposes to be applied on the operation of well sinking ; and further that the engine be bought in Canada, thereby effecting a saving of duty and freight on same. I would also recommend that these machines, if got, be operated continually, that is, night and day to the completion of the well, and that two competent foremen be secured in time to operate each machine, together with the necessary help.

The six Austin machines should be operated in the districts suitable to their capacity, with a competent driller as foreman on each machine.

At a test made on No. 4 machine by Mr. Fred Doman at Rosewood schoolhouse, with a five horse power gasoline engine, supplied by The McLachlan Gasoline Engine Co., 201 Queen St., Toronto, he found that he could get from 3 inch to 4 inch longer stroke and steadier than what he could with 4 horses on the power.

I further made a test with same machine at Kenlis to determine the amount of gasoline consumed in ten hours steady work, and found that a fraction over two gallons per day was the amount used. The engine is now in the warehouse, and I would also recommend the purchase, for each machine sent out, of an engine of the make above described, as it is the simplest machine I have ever seen on the market and the easiest to operate.

Yours respectfully,

WILLIAM DUFF,
Superintendent of Well Boring.

It is apparent that the Department must now consider the steps which it is necessary to take to obtain water in the districts where we have failed to develop a supply with our present well boring plant. That deep well boring (that is "deep" in the sense that drilling will have to be carried to depths beyond 400 feet) is an expensive undertaking is well known. However, in the districts where the use of our Austin machines or the Ohio Jetting machine have failed to develop a supply, it is quite apparent that only by the use of machines which will bore to great depths can we hope to be able to provide what is absolutely necessary to enable the settlers in these districts to obtain the water supply which they must have to enable them to continue their farming operations.

SCHEDULE of Public Wells.

Maple Creek, S. 15-11-26w3.....	Drilled 1897 and 1899; depth 260 ft., water good, pump and house.
S. 24/19-18-18w2	Drilled 1898; depth 146 ft., water very good, pump and house.
N.E.¼ S. 33-19 and S.E.¼ S. 4-20-15w2...	Drilled 1898; depth 131 ft., water very good, pump and house.
S. 15/22-20-14w2	Drilled 1898; depth 126 ft., water good, pump and house.
S. 20/29-20-13w2	Drilled 1898; depth 124 ft., water good, pump and house.
S. 10/11-19-10w2	Drilled 1900; depth 264 ft., water very good, pump and house.
S. 2/3-19-10w2	Drilled 1900; depth 160 ft., water good, pump and house.
S. 2/11-19-2w2	Drilled 1898; depth 65 ft., water first class, pump and house.
S. 4/9-19-1w2	Drilled 1898; depth 71 ft., water good, pump and house.
S. 6/7-19-1w2	Drilled 1898; depth 49 ft., water good, pump and house.
S. 28/29-14-2w2	Drilled 1898; depth 83 ft., water good, pump and house.
S. 13/14-12-1w2	Drilled 1898; depth 57 ft., water first class, pump and house.
S.E.¼ S. 23-40-4w3.....	Drilled 1898; depth 87 ft., water good, pump and house.
S. 33/34-42-5w3	Drilled 1898; depth 98 ft., water good, pump and house.
N.W.¼ S. 5 and N.E.¼ S. 6-44-4w3	Drilled 1898; depth 117 ft., water good but hard, pump and house.
S. 33/4-43/44-2w3.....	Drilled 1898; depth 94 ft., water good, pump and house.
Industrial School, S. 4-44-2w3.....	Drilled 1898; depth 93 ft., water good, pump and house.
Industrial School, S. 4-44-2w3.....	Drilled 1898; depth 110 ft., water good, pump and house.
S. 10/15-44-28w2	Drilled 1898; depth 63 ft., water good but hard, pump and house.

S. 12/13-44-28w2	Drilled 1898; depth 170 ft., water good, little supply, pump and house.
S. 2/3-45a-27w2	Drilled 1898; depth 108 ft., water good, pump and house.
S. 33/4-44/45a-26w2	Drilled 1898; depth 88 ft., water good, pump and house.
S. 19/30-44-26w2	Drilled 1898; depth 95 ft., water good, pump and house.
S. 35-42-3w3	Drilled 1898; depth 75 ft., water good, pump and house.
S.E. $\frac{1}{4}$ S. 4-43a and N.E. $\frac{1}{4}$ S. 33-42-4w3	Drilled 1899; depth 51 ft., water good, pump and house.
N.W. $\frac{1}{4}$ S. 36-43 and S.W. $\frac{1}{4}$ 1-42-4w3	Drilled 1899; depth 86 ft., water slightly iron, pump and house.
S.W. $\frac{1}{4}$ S. 5-41 and N.W. $\frac{1}{4}$ S. 32-40-4w3	Drilled 1899; depth 185 ft., water good, pump and house.
S.E. $\frac{1}{4}$ S. 30 and N.E. $\frac{1}{4}$ S. 19-47-22w2	Drilled 1900; depth 116 ft., water good, pump and house.
N.E. $\frac{1}{4}$ S. 21 and N.W. S. 22-45-22w2	Drilled 1900; depth 73 ft., water good, pump and house.
N.W. $\frac{1}{4}$ S. 9 and S.W. $\frac{1}{4}$ S. 16-45-21w2	Drilled 1900; depth 90 ft., water good, pump and house.
S.W. $\frac{1}{4}$ S. 12 and N.W. $\frac{1}{4}$ S. 1-45-21w2	Drilled 1900; depth 340 ft., water good, pump and house.
Langdon, S. 23-23-27w4	Drilled 1900; depth 121 ft., flowing well, water good.
S. 10/15-44-19w2	Drilled 1900; depth 42 ft., water good, pump and house.
N.E. $\frac{1}{4}$ S. 31 and N.W. $\frac{1}{4}$ S. 32-44-18w2	Drilled 1900; depth 48 ft., water good, pump and house.
N.W. $\frac{1}{4}$ S. 20-46-23w2	Drilled 1900; depth 87 ft., water good, pump and house.
S.W. $\frac{1}{4}$ S. 31 and S.E. $\frac{1}{4}$ S. 36-19-17/18w2	Drilled 1899; depth 77 ft., water good, pump and house.
N.E. $\frac{1}{4}$ S. 8 and N.W. $\frac{1}{4}$ S. 9-19-18w2	Drilled 1899; depth 200 ft., water good, pump and house.
N.W. $\frac{1}{4}$ S. 10 and S.W. $\frac{1}{4}$ S. 15-18-24w2	Drilled 1899; depth 164 ft., water good, pump and house.
S.W. $\frac{1}{4}$ S. 18-23-28 and S.E. $\frac{1}{4}$ S. 13-23-29w4	Drilled 1899; depth 60 ft., water very good, pump and house.
N.E. $\frac{1}{4}$ S. 16 and N.W. $\frac{1}{4}$ S. 15-22-29w4	Drilled 1899; depth 120 ft., water very good, pump and house.
S.E. $\frac{1}{4}$ S. 20 and S.W. $\frac{1}{4}$ S. 21-23-28w4	Drilled 1899; depth 40 ft., water very good, pump and house.
N.E. $\frac{1}{4}$ S. 13-22-23w4	Drilled 1899; depth 125 ft., water soft and good, pump and house.
S. 16/17-18-25w2	Drilled 1900; depth 248 ft., water good, pump and house.
S. 3/4-23-28w4	Drilled 1900; depth 121 ft., water good, pump and house.
S. 7/12-24-28/29w4	Drilled 1900; depth 131 ft., water good, pump and house.
At Swift Current, S. 25-15-14w3	Drilled 1901; depth 174 ft., water good, pump and house.
Between S. 21/28-8-26w4	Drilled 1901; depth 35 $\frac{1}{2}$ ft., water good, pump and house.
S. 36-8-26w4	Drilled 1901; depth 46 ft., water good, pump and house.
At Wolseley, between S. 11/12-17-10w2	Drilled 1901; depth 135 ft., water good, pump and house.
N. of Percival, between S. 19/24-16-3w2	Drilled 1901; depth 137 ft., water good, pump and house.
Between S. 31/32/5/6-14/15-2w2	Drilled 1901; depth 108 ft., water good, pump and house.
Between S. 16/15/9/10-18-17w2	Drilled 1901; depth 120 ft., water good, pump and house.
Between S. 21/22-13-4w2	Drilled 1901; depth 115 ft., water good, pump and house.
Between S. 4/5-14-4w2	Drilled 1901; depth 60 ft., water good, pump and house.

S. of Pense, between S. 7/13/12/18-16-21/22w2	Drilled 1901 ; depth 400 ft., water good, pump and house.
At Pense, S. 9-17-22w2.....	Drilled 1901 ; depth 154 ft., water good, pump and house.
Between S. 11/14-18-17w2.....	Drilled 1901 ; depth 100 ft., water good, pump and house.
Between S. 3/4-16-3w2.....	Drilled 1901 ; depth 120 ft., water good, pump and house.
Between S. 10/11-19-17w2.....	Drilled 1901 ; depth 226 ft., water good, pump and house.
Between S. 29/30-14-21w2.....	Drilled 1901 ; depth 105 ft., water good, pump and house.
Between S. 20/21-14-21w2.....	Drilled 1901 ; depth 105 ft., water good, pump and house.
At Carmel school house, between S. 9/16-18-26w2.....	Drilled 1901 ; depth 253 ft., water good, pump and house.
Between S. 33/34-14-22w2.....	Drilled 1901 ; depth 118 ft., water good, pump and house.
At Rose Lane school house, between S. 35/36-17-9w2.....	Drilled 1901 ; depth 130 ft., water good, pump and house.
Between S. 19/24/13/18-15-31/32w1	Drilled 1901 ; depth 177 ft., water good, pump and house.
Between S. 31/36-18-17/18w2.....	Drilled 1901 ; depth 202 ft., water good, pump and house.
At Summerside school house, between S. 26/27-17-28w2	Drilled 1901 ; depth 300 ft. (To be completed.)
Between S. 27/28-12-30w1.....	Drilled 1901 ; depth 70 ft., water good, pump and house.
Between S. 21/28-18-18w2.....	Drilled 1901 ; depth 130 ft., water good, pump and house.
Between S. 11/14-15-22w2.....	Drilled 1901 ; depth 101 ft., water good, pump and house.
Between S. 4/5-15-22w2.....	Drilled 1901 ; depth 101 ft., water good, pump and house.
At centre mound of S. 34, between S. 3/34-18/19-18w2.....	Drilled 1901 ; depth 149 ft., water good, pump and house.
At Poplar Grove school house, between S. 28/29-19-9w2.....	Drilled 1901 ; depth 190 ft., water good, pump and house.
At High Bluff school house, between S. 18/19-19-9w2.....	Drilled 1901 ; depth 250 ft., water good, pump and house.
North boundary S. 35-18-31w1.....	Drilled 1901 ; depth 70 ft., water good, pump and house.
At Glen Ewen, S. 34-2-34w1.....	Drilled 1901 ; depth 220 ft., water good, pump and house.
Between S. 24/25-14-22w2.....	Drilled 1901 ; depth 114 ft., water good, pump and house.
West boundary N.W. $\frac{1}{4}$ S. 15-14-22w2...	Drilled 1901 ; depth 120 ft., water good, pump and house.
At Stirling, S. 29-6-19w4.....	Drilled 1901 ; depth 450 ft., water good, pump and house.
At Henley, S. 1-31-4w3.....	Drilled 1902 ; depth 76 ft., water good, pump and house.
At Raymond, T. 6-20w4.....	Drilled 1902 ; depth 122 ft., water soft.
At Alameda, S. 1-4-3w2.....	Drilled 1902 ; depth 240 ft., water good.
At Cannington Manor, between S. 12/13-9-1w2.....	Drilled 1902 ; depth 325 ft., water good, pump and house.
Between 19/24-30-4/5w3.....	Drilled 1902 ; depth 154 ft., water good, pump and house.
At Stirling, between S. 25/26-8-21w4...	Drilled 1902 ; depth 165 ft., water good, slightly hard.
Grand Coulee, between S. 15/16-17-21w2	Drilled 1902 ; depth 108 ft., water good, pump and house.
Carievale, S. 30-2-31w1.....	Drilled 1902 ; depth 251 ft., flowing well.

SCHEDULE of Test Augers in Operation, 1902.

NO.	WHERE OPERATED	IN CHARGE OF	ADDRESS
1	Whitewood	W. A. Lamont.....	Whitewood.
2	Whitewood	W. A. Lamont.....	Whitewood.
3	Cannington	W. Ramage	Wawota.
4	Cannington	G. D. Dicken	Cannington Manor.
5	Wolseley	Robt. Whitehead	Pheasant Forks.
6	Moosomin	Robt. Vance.....	Moosomin.
7	Moosomin	J. A. Brown.....	Spy Hill.
8	Souris	G. H. Knowling	Alameda.
9	Souris	G. H. Knowling	Alameda.
10	Mitchell	Thos. Copland.....	Saskatoon.
11	Grenfell	D. D. McDonald	Grenfell.
12	North Regina	Department Public Works.	Regina.
13	Yorkton	J. F. Reid	Yorkton.
14	South Qu'Appelle	Jas. McNaughton.....	South Qu'Appelle.
15	North Qu'Appelle	S. Brodie	Qu'Appelle.
16	Wolseley.....	W. P. Osler	Wolseley.
17	North Qu'Appelle	W. M. McKenzie	Touchwood Hills.
18	Grenfell	Alex. Campbell.....	Tiree.
19	South Qu'Appelle	H. McGowan	Weyburn.
20	South Regina.....	Jacob Quinn.....	Rouleau.
21	Battleford.....	Geo. Clauston	Battleford.

LOCAL IMPROVEMENT BRANCH.

Staff { Clerk in charge.
5 clerks.
2 stenographers and typewriters.

The work of this branch, in common with the other branches of the Department, shows a great increase during the past year and it will be noted from the detailed information given further on that this increase extends throughout all branches of the work dealt with by this branch of the Departmental service.

Small Districts.

There are now organised and in operation in the Territories the following number of Small Local Improvement Districts, the dates of organisation being given for the purpose of reference :

Districts organised, voluntary, in 1890.....	1
do do in 1893.....	2
do do in 1894.....	19
do do in 1895.....	20
do do in 1896.....	15
do compulsory, in 1897.....	181
do do in 1898.....	178
do do in 1899.....	32
do do in 1900.....	33
do do in 1901.....	12
do by subdivision in 1902.....	2
Districts disorganised for various reasons.....	495
	37
Number of Districts now in operation.....	458

The work performed by the above districts is appended in the usual schedule form as being the most convenient for reference.

Amount collected by overseer for taxes for 1901, largely payments by companies and other non- resident land owners.....		\$39,447.67
Number of days worked in commutation of taxes..		52,862
Number of miles of road graded		509
do do do cleared		422
do do of fireguard ploughed.....		682
do bridges built.....		308
do do repaired.....		303
do culverts built....		2,051
do do repaired.....		671
do dams built.....		56
do do repaired.		114
do holes, old wells, sloughs, etc., filled.....		4,233
do yards corduroy completed ...		68,120
Average amount paid overseer for assessing and overseeing work of the district.....		\$34.08

LIST of Local Improvement Districts with Description of and Name of Overseer.

AREA		NAME OF OVERSEER	P. O. ADDRESS	DIST. NO.
West Principal Meridian.				
Range 30				
Tp	1.....	W. H. Coney.....	Winlaw, Assa.	152
	2.....	Henry McClung.....	Gainsborough, "	156
	3.....	Alex. McClung.....	" "	150
	9.....	T. H. Fair.....	Heron, "	158
	11.....	Arch. McCormick.....	Fleming, "	163
	10.....	William Stableford.....	Lippentott, "	172
	12.....	Henry Davis.....	Fleming, "	295
	13.....	Jas. Pearson.....	" "	296
	14.....	Jas. H. Young.....	Moosomin, "	298
	15.....	Ronald Stewart.....	Farndale, "	299
	16.....	W. N. Latter.....	" "	297
	19.....	Emerson Blygh.....	Millwood, "	484
	22.....	G. McFadyen.....	Langenburg, "	135
	23.....	J. H. Haas.....	" "	133
Range 31				
Tp	1.....	Jacob G. Burke.....	Elmore, "	142
	2.....	Thos. Delahay.....	Gainsborough, "	160
	3.....	Edmund Passino.....	Carievale, "	144
	11.....	J. W. Hardaker.....	Fair light, "	175
	12.....	Ernest Milne.....	Moosomin, "	302
	13.....	Thomas Wains.....	" "	303
	14.....	R. J. Phin.....	" "	304
	15.....	Malcolm McNeil.....	" "	305
	16.....	Albert Webster.....	Hilburn, "	306
	17.....	Jos. A. Dunsmore.....	Rocanville, "	307
	18.....	Robert Greer.....	Spy Hill, "	308
	19.....	Selby Carter.....	" "	417
	21.....	Herman Heinsohn.....	Langenburg, "	79
	22.....	William Fieseler.....	" "	88
	23.....	Adolphe Backer.....	" "	134
	24.....	Gisli Egilsson.....	Logberg, "	497
	25.....	Wasil Rurak.....	" "	411

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA		NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Principal Meridian				
Range 32				
Tp	1	J. W. Harris	Workman, Assa,	161
	2	T. Thomas Wilson	Carnduff,	167
	3	W. J. Foster	"	157
	4	John Campbell	"	484
	11	George Faulkner	Rosetti,	18
	12	Geo. Wells	Valley,	191
	13	William Bruce	"	309
	14	Roderick McCormick	Red Jacket,	310
	15	Jos. M. Buck	Wapella,	311
	16	Joseph Goodman	Hillburn,	312
	17 east two tiers of Sections only	J. A. Dunsmore	Rocanville,	307
	17 except two east tiers of Sections	Alex. McRae	Carnoustie,	313
	18	James Ormiston	Dongola,	314
	19	W. L. Brown	"	448
	20	John H. Riddall	Redpath,	86
	21	Michael Buckborger	Langenburg,	94
	22	James Heasman	Churchbridge,	143
	23	S. Lopston	"	132
	24	J. Einarrson	Logberg,	82
	25	Alex. Salahab	Rothbury,	499
Range 33				
Tp	2	Samuel Robertson	Carnduff,	149
	3	A. N. Atkinson	Glend Ewen,	154
	4	Thos. Timmons	Oakley,	182
	10	Alex. Calder	Wawota,	166
	11	Alex. Calder	"	166
	12	A. H. Salmon	Riga,	315
	13	Donald McKinnon	Earlswood,	316
	14	Colin Campbell	Wapella,	317
	15	Francis T. Low	"	318
	16	Benjamin Wainman	"	319
	17	T. Karpinnen	New Finland,	320
	18	G. Millham	Hazel Cliffe,	321
	19	Wm. L. Brown	Redpath,	448
	20	John H. Riddall	"	86
	21	William Rowland	Riversdale,	96
	22	James Heasman	Churchbridge,	143
	23	S. Lopston	"	132
	24	J. Einarrson	Logberg,	82
Range 34				
Tp	1	J. P. McKenzie	Oxbow,	176
	2 fr	Samuel Robertson	Carnduff,	149
	3 fr	A. N. Atkinson	"	154
	4 fr	Thos. Timmons	Oakley,	182
	7 fr	Jno. A. Clarke	Manor,	474
	8 fr	Philip Cooke	Cannington Manor,	452
	9 fr	Geo. D. Dickin	Cannington Manor,	184
	10 fr	A. M. Hamilton	Glen Adelaide,	173
	11 fr	Alex. Calder	Wawota,	166
	12 fr	A. H. Salmon	Riga,	315
	13 fr	Donald McKinnon	Earlswood,	316
	14 fr	Colin Campbell	Wapella,	317

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA		NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Second Meridian.				
Range 1				
Tp	1	J. P. McKenzie	Oxbow, Assa.	176
	2	Geo. Robson	" "	162
	3	Jas. P. Maitland	" "	164
	4	Thos. Montgomery	" "	153
	7	Jno. A. Clarke	Manor, "	474
	8	Philip Cooke	Cannington Manor,	452
	9	George D. Dickin	" "	184
	10	A. M. Hamilton	Glen Adelaide, "	173
	11	John Haldenby	Wawota, "	271
	12	Jas. Maywood	Fairmede, "	130
	13	R. L. Kidd	" "	128
	14	John McDonald	Benbecula, "	137
	15	D. McLeod	Wapella, "	440
	16	William Elliott	" "	120
	17	Wm. Stephens	Forest Farm, "	123
	18	Joe. Kruppa	Kaposvar, "	124
	19, 19a, and 20 north of Little Cut Arm creek.	Stephen Barath	" "	105
	19 and 20 south of Little Cut Arm creek.	Arthur Ford	" "	99
	21	Jas. Nixon	Kinbrae, "	136
	22	John C. Bird	Clumber, "	6
	23	C. W. C. Saunders	Saltcoats, "	8
	24	Ernest Cass	" "	5
	25	Angus McLeod	" "	10
	27	H. Thomas	Mulock, "	531
	28	Alex. Boiczuk	" "	532
Range 2				
Tp	1	Wm. J. Morrison	Boscurvis, "	168
	2	Thomas H. Gregson	Oxbow, "	268
	3	J. McBride	" "	145
	4	Thomas Dickson	" "	141
	5	W. Summerton	Dalesboro, "	483
	6	Robert Hume	" "	478
	7	Henry Roberts	Carlyle	198
	8 and 9	K. N. McLeod	" "	178
	10 Sections 1, 24, 25, 26, 34, 35 and 36 only	A. M. Hamilton	Glen Adelaide, "	173
	11	Arthur Barre	High View, "	486
	13	Jas. May	Poplar Grove, "	147
	14	W. H. James	Whitewood, "	114
	15	W. A. Mann	" "	129
	16	H. A. Wiley	" "	113
	17	Norman McDonald	" "	100
	18	Ole Peterson	Ohlen, "	103
	19, 20 and 19a, south of Little Cut Arm creek.	Axel Olson	" "	104
	22	A. C. Thompson	Bredenbury	16
	23	W. E. Porter	Saltcoats, "	9
	24	Gilbert Hughes	" "	7
	25	John Jowsey	" "	84
	26	Anthony Sherwin	Yorkton, "	533
	27	H. H. Garrison	" "	534
	28	Charles H. Lakey	Mulock, "	453

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Second Meridian.			
Range 3			
Tp 3.	David McKnight	Alameda, Assa.	148
4.	John McNeil	" "	155
6.	Jeremiah Coffey	Dalesboro, "	151
7.	E. Richardson	Carlyle, "	250
8 and 9.	H. Cope	Arcola, "	186
11.	D. M. Murray	High View, "	165
13.	Alfred Law	Montgomery, "	395
14.	Albert Wilton	Whitewood, "	119
15.	Stephen A. Hall	" "	112
16.	John King	" "	98
18, 19 and 19a, north and east of Round lake	Nils Dahl	Ohlen, "	394
North $\frac{1}{2}$ 22 and Tp 23	Charles Mitchelmore	Crescent Lake, "	11
24.	William S. Outhwaite	Yorkton, "	420
25.	J. W. Chrysler	" "	127
26.	Thos. W. Derry	" "	89
27.	William McDougall	Wallace, "	492
28.	Wasil Prozeshyn	Yorkton, "	410
29 west $\frac{1}{2}$ only	William Tetlock	" "	447
Range 4			
Tp 3 and south $\frac{1}{2}$ Tp 4.	Thos. Collopy	Frobisher, "	384
7.	Sandford McNeill	Arcola, "	180
8.	Robert Kerr	" "	270
11.	J. G. Warner	Fletwode, "	183
14.	J. F. Cunningham	Fitzmaurice, "	146
16.	Jos. Cope, Senr	Broadview, "	115
Fr 18, south $\frac{1}{2}$ 19 and fr 19a.	Thomas Bawdon	Cotham, "	244
22, except Sections 1, 2, 3, 4, 5, 6, 10, 11 and 12 and Tp 23.	Wm. Cross	Crescent Lake, "	4
24.	John McInnes, Junr.	Yorkton, "	371
25.	Thos. A. Waterfield	" "	170
26.	F. Reaman	" "	3
27.	Ed. Strohschein	Ebenezer, "	252
28.	James Sanderson	" "	251
29.	Wm. Tetlock	Yorkton, "	447
Range 5			
Tp 1.	Jas. S. Upper	North Portal, "	365
7.	Wm. Nichol	Arcola, "	284
8 and 9.	John Patton	" "	238
15.	Jos. R. Bird	Broadview, "	116
16.	Wilfrid Wilde	" "	364
Fr 18, south $\frac{1}{2}$ 19 and fr 19a.	Thomas Bawdon	Cotham, "	244
23 north two tiers of Sections.	John Kovacz, Junr.	Yorkton, "	378
24.	Robert Roussay	" "	428
25.	Gilbert Stainger	" "	253
26.	John G. Stephen	" "	174
27.	Henry W. Cooper	Whitesand, "	254
28 and south $\frac{1}{2}$ 29.	William Tetlock	Yorkton, "	447
North $\frac{1}{2}$ of Tp 29.			

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Second Meridian.			
Range 6			
Tp 1	S. Simpson	North Portal, Assa.	185
7	Henry McCartney	Coteau, "	188
8 and 9	P. A. Finn	Percy, "	181
15	Albert Dash	Broadview, "	102
16	Jacob Croll	"	101
19	Anton G. Flegel	Mariahilf, "	493
20	Atam Nestmann	"	536
Sections 25, 26, 27, 34, 35 and 36 in Tp 23 and east $\frac{1}{2}$ Tp 24	John Kovacz, Junr.	Yorkton, "	378
25 west half only	Henry Riddell	Willowbrook, "	427
25 east half only	Robert Roussay	Yorkton, "	428
26 east half only	Gilbert Stainger	"	253
26 west half only	Ed. Fred. Everest	Theodore, "	380
27 and Secs. 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17 and 18 in Tp 28	George Fernie	"	171
28 2 east tiers of Secs. only	Henry W. Cooper	Whitesand, "	254
28 Secs. 19, 20, 21, 22, 27, 28, 29, 30, 31, 32, 33 and 34 only	Nels. Frederickson	Theodore, "	368
29 Secs. 5, 6, 7, 8, 17, 18, 19, 20, 29, 30, 31 and 32 only.			
Range 7			
Tp 8	Jerry Foy	Alma, Assa.	177
15	John Brown	Grenfell, "	61
16	Thomas W. Wright	"	62
17	R. B. Bennett	"	75
18	G. D. Fitzgerald	"	60
19 and 19a, portions south of river	Norman McLeod	Hyde, "	388
20	Philip Hauser	"	93
19 portion north of river	Jacob Ott	"	389
25	Henry Riddell	Willowbrook, "	427
26	Ed. Fred. Everett	Theodore, "	380
27	Wm. Anderson	Beaverdale, "	379
28	Nels Frederickson	Theodore, "	368
Range 8			
Tp 2 except village of Estevan	W. J. Hobbs	Estevan, "	140
16	James S. McDonell	Grenfell, "	346
17	James McCowan	Summerberry, "	347
18, 19 and 19a, south of Qu'Appelle river	Robt. J. Parsons	Ellisboro, "	348
18, 19 and 19a, north of Qu'Appelle river	James Brown	Tiree, "	349
20	Fillip Hupp	Neudorf, "	80
21	John Matthews	Pheasant Forks, "	78
25 east $\frac{1}{2}$ only	Henry Riddell	Willowbrook, "	427
26 east $\frac{1}{2}$ only	E. F. Everest	Theodore, "	380
28 Secs. 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27 and 28 only	Nels. Frederickson	"	368
28 Secs. 31, 32, 33, 34, 35 and 36 only.			

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Second Meridian.			
Range 9			
Tp 15.....	Jas. Macallister.....	Moffatt, Assa.	350
16.....	Alex. Fleming.....	Adair, “	351
17.....	E. H. Dale.....	Wolseley, “	352
18 and 19a.....	R. E. C. Oliver.....	Ellisboro, “	353
19.....	Geo. Simpson.....	“ “	354
20.....	J. B. Gamble.....	Chickney, “	76
21.....	J. A. Smith.....	Pheasant Forks, “	72
Range 10			
Tp 15.....	Thos. Taylor.....	Moffatt, “	355
16.....	Jno. H. Rigney.....	Wolseley, “	356
17.....	Samuel Mitchell.....	“ “	357
18 portion south of river.....	Geo. E. Draper.....	Ellisboro, “	358
18, 19a and 19 north of river.....	John W. Jolly.....	Hill Farm, “	359
20.....	John Stueck.....	Chickney, “	64
21.....	H. M. Aldous.....	Lorlie, “	74
Range 11			
Tp 15.....	V. R. Vogier.....	Montmartre, “	367
20.....	Amos Shaw.....	Abernethy, “	19
21.....	Chas. Stevenson.....	Balcarres, “	330
22 west of Indian reserve.....	Arthur Newstead.....	Fort Qu'Appelle, “	462
Range 12			
Tp 20 portion north and east of Qu'Appelle river & lakes.....	J. R. Balfour.....	Saltoun, “	27
20 portion south & west of Qu'Appelle river & lakes.....	Wm. Braithwaite....	Fort Qu'Appelle, “	398
21.....	Joseph Shore.....	“ “	190
22.....	Arthur Newstead.....	“ “	462
Range 13			
Tp 20 and that portion south of river and lake of Tp 21.....	Wm. Braithwaite....	Fort Qu'Appelle, “	398
21 portion north of river & lake.....	Jas. McIntyre.....	Lebret, “	426
22 Secs. 31, 32, 33 and 34 only.....			
23 four west tiers of Secs. only.....	Jos. Atkinson.....	Hayward, “	456
Range 14			
Tp 20.....	Cyrus Booth.....	Fort Qu'Appelle, “	397
21 south of river and lake & including H. B. reserve.....	J. Ormiston.....	“ “	399
22 Secs. 35 and 36 only.....			
23 two east tiers of Secs. only.....	Jos. Atkinson.....	Hayward, “	456
Range 17			
Tp 15.....	John Buhler.....	Kronau, “	65
16.....	Jacob Hicks.....	Hicksvale, “	85
17.....	Jas. Rollins.....	Balgonie, “	87
18.....	Philip Mang.....	“ “	138
19 and 20.....	Walker Holden.....	Hednesford, “	50

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P. O. ADDRESS	DIST. NO.
West Second Meridian.			
Range 18			
Tp 16	Albert Weeks	Regina, Assa.	131
17	J. D. McInnis	" "	70
18	Samuel Wagner	" "	122
19	W. H. Davis	" "	49
44	F. B. Pengelly	Melfort, Sask.	117
45 Secs. 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30 only.	Geo. Ambury	" "	386
Range 19			
Tp 16	J. C. Moore	Regina, Assa.	421
18	Jno. Dalgleish	" "	107
19	Andrew Ormiston	Foxleigh, " "	108
44	Philip Bolton	Pleasant Valley, Sask.	121
45 Secs. 1, 2, 3, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 34, 35, 36 only.	Geo. Ambury	Melfort, " "	386
Range 20			
Tp 16	Peter Horn	Regina, Assa.	193
Tp 17	Joseph Boyd	Regina, " "	196
18	Robt. G. Fitzpatrick ..	" "	91
19	John E. Petrie	Tregarva, " "	109
20	Isaac W. Sutton	" "	90
44	Angus McLean	Flett's Springs, Sask.	449
Range 21			
Tp 16	W. Vancise	Regina, Assa.	488
17	E. L. Williamson	Pense, " "	126
18	Jno. Martin	Wascana, " "	139
19	S. S. Dickson	Lumsden, " "	118
44 Secs. 21, 22, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36 only.			
45	Robert Paynter	Kinistino, Sask.	106
Range 22			
Tp 16	Thos. Clark	Pense, Assa.	63
17	William Cator	" "	243
18	J. W. McGillivray	Cottonwood " "	92
19	Jno. Campbell	Lumsden, " "	95
45	W. M. Hamilton	Kinistino, Sask.	194
48 portions of each township			
49 lying between rivers ..	Jas. Fraser	Steep Creek, " "	375
Range 23			
Tp 17	M. McLaughlin	Pense, Assa.	543
18	Thomas Brooks	Fairville, " "	179
19	Angus G. Wilkie	Disley, " "	195
46	Miles Lyons	Brancepeth, Sask.	97
48 and 49, portion of each township between rivers	J. R. Smyth	Steep Creek, " "	374

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P. O. ADDRESS	DIST. NO.
West Second Meridian.			
Range 24			
Tp 17.....	Robert E. Allcock....	Eastview, Assa.	264
18.....	J. W. Cafferta.....	Stony Beach, "	204
46.....	Joseph Bird.....	Birch Hills, Sask.	461
47 and 48, portions between rivers.....	George S. Reid.....	Cecil, "	377
Range 25			
Tp 16.....	Harry Smith.....	Pasqua, Assa.	535
18.....	John Wallace.....	Moose Jaw, "	34
19 fr. south of Buffalo lake	William Poulter.....	Point Elma, "	57
46.....	J. H. Clyft.....	Puckahn, Sask.	376
47.....	Wm. A. Codlin.....	Prince Albert, "	373
48.....	Thos. McCloy.....	" "	372
Range 26			
Tp 17.....	J. W. Smith.....	Moose Jaw, Assa.	276
18.....	W. J. Glover.....	" "	242
19 south of Buffalo lake	Wm. Potter.....	Point Elma, "	57
Fr 45 including River lots 1, 2, 3,			
46 including River lots.....	B. Cook.....	Halcro, Sask.	366
Tp 47.....	R. J. M. Sutherland...	Prince Albert, Sask.	246
48 including River lots 52 to 82 inclusive and all of Hudson Bay Co.'s reserve not included within the town of Prince Albert..	Robt. Stanley.....	" "	265
Range 27			
Tp 16.....	Jos. Lett.....	Pioneer, Assa.	200
17.....	Ben Smith.....	Boharm, "	36
18.....	Jno. Geo. Beesley.....	Marlborough, "	203
45 including River lots 1 to 24 inclusive and Secs. 25, 26, 27, 34, 35 and 36 only.			
46 east half only.....	Jno. Stansfield.....	Red Deer Hill, Sask.	245
45 south of river with River lots.			
45a.....	J. B. Boucher.....	St. Louis, "	288
45 west half only and River lots 25 to 48 inclusive ..	G. C. Spence.....	Willoughby, "	416
47 part not included in districts 391 and 392.....	Wm. Kirby.....	Prince Albert, "	248
47 Secs. 1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27 only	C. J. Cook.....	" "	391
47 Secs. 4, 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21 only.....	Robt. Foulds.....	Lindsay, "	392
Range 28			
Tp 16 Secs. 1, 12, 13, 24, 25, 26 only.....	Jos. Lett.....	Pioneer, Assa.	200
17.....	J. Wilson.....	Caron, "	205
18.....	W. McBride.....	" "	266
43 Secs. 21, 22, 23, 24, 25, 26, 27, 34, 35, 36 only.....			

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Second Meridian.			
Range 28— <i>Con.</i>			
Tp 44.....	J. B. Dumont.....	Duck Lake, Sask.	439
45a			
45 south of river including Riverlots 1 to 12 inclusive	J. B. Dumont.....	Duck Lake, "	439
Fr 46.....	Hector McDonald.....	Willoughby, "	281
Fr 47 except Secs. 1, 2, 13, 24..	Denis Duffy.....	Lily Plains, "	247
Tp 47 Secs. 35 and 36 and River lots 1 to 51 inclusive....			
48.....	Wm. Kirby.....	Prince Albert, "	248
47 Secs. 1, 2, 13, 14 only....	Robt. Foulds.....	Lindsay, "	392
Range 29			
Tp 18.....	A. H. Powell.....	Caron, Assa.	215
West Third Meridian.			
Range 1			
46.....	Hector McDonald.....	Willoughby, Sask.	281
47 including River lots 1 to 14 inclusive.			
Tp 48 fr.			
49 portion south of Saskatchewan river.....	Denis Duffy.....	Lily Plains, "	247
Range 2			
Tp 42 and 43a.....	J. B. Friesen.....	Rosthern, "	331
43 and 44.....	Moise Courchene.....	Duck Lake, "	125
48 Secs. 28, 29, 30, 31, 32, 33 only and			
49 west half only.....	Walter Brown.....	Shellbrook, "	337
Range 3			
Tp 42.....	Peter Siemens, Junr....	Rosthern, "	333
43 and 43a.....	Geo. Langley.....	" "	334
44.....	John Dallas.....	Wingard, "	335
45 and 46.....	Geo. J. Isbister.....	" "	336
48 Sec. 29, 30, 31, 32 only and			
49 west two tiers of Sections only.....	F. Lorenz.....	Shellbrook, "	385
48 Secs. 25, 26, 27, 28, 33, 34, 35, 36 only and			
49 east four tiers of Sections only and			
50 Secs. 1, 2, 3, 4, 9, 10, 11, 12 only.....	Walter Brown.....	" "	337
Range 4			
Tp 42.....	Diedrich Epp.....	Rosthern, "	466
43.....	Gerhard J. Address.....	" "	340
44 except Secs. 1 to 7 inclusive and H. B. reserve	Wm. Raabe.....	" "	341
45 portion south of Saskatchewan river and including H. B. Reserve and			

List of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Third Meridian.			
Range 4— <i>Con.</i>			
River lots 1 to 7 inclusive	C. H. Kallbfleisch.....	Carlton, Sask.	477
Tp 48 Secs. 25, 26, 27, 28, 29, 32, 33, 34, 35, 36 only.....	Walter Brown.....	Shellbrook, "	337
49 except Secs. 6, 7, 18, 19, 30, 31, 32, 33, 34, 35, 36...	F. Lorenz.....	" "	385
Range 5			
Tp 36.....	Hermann Schmidt.....	Nutana, "	393
42.....	Jacob D. Neufeldt.....	Waldheim, "	343
43.....			
44 portion south of river including River lots 9, 10, 11 and Young Chipewyan Indian reserve...	Geo. Schmidt.....	" "	344
Range 6			
Tp 36 except part of Sec. 1 lying south of river and south half of 37.....	Henry Smith.....	Saskatoon, "	280
Tp 36 part only of Sec. 1 south of river.....	Hermann Schmidt....	Nutana, "	393
42.....	Jacob L. Weins.....	Rosthern, "	475
Range 13			
Tp 15 west half.....	E. Cooper.....	Swift Current, Assa.	383
Range 14			
Tp 15 east half.....	E. Cooper.....	" "	383
Range 16			
Tp 42.....	Jno. Pambourn.....	Battleford, Sask.	234
Range 17			
Tps 47 and 48, portions north of Jackfish lake.....	Thomas Duhaime.....	Jackfish Lake, "	232
Range 18			
Tps 45 and 46, portions between Battle and Saskatchewan rivers and Thunderchild's Indian reserve...	Alex. Bremner.....	Bresaylor, "	233
Range 19			
Tps 45 and 46, portions between Battle and Saskatchewan rivers and Thunderchild's Indian reserve...	Alex. Bremner.....	" "	233
Range 26			
Tp 11.....	Moses Elliott.....	Maple Creek, Assa.	197

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Fourth Meridian.			
Range 2			
Tp 9 west half.....	James Robinson.....	Josephsburg, Assa.	444
Range 3			
Tp 9 east half.....	James Robinson.....	" "	444
Range 5			
Tp 12.....	George Jenkins.....	Dunmore, "	445
Range 15			
Tp 56.....	Patrick Boland.....	Manawan, Alta.	51
Range 16			
Tp 56.....	James Hamilton.....	Whitford, "	482
57.....	Jno. Whitford.....	Hunka, "	471
Range 17			
Tp 52.....	J. D. McAllister.....	Beaver Lake, "	403
58.....	Magnus Cromarty.....	Pakan, "	487
Range 18			
Tp 50.....	Law Anderson.....	Northern, "	400
51 west of Beaver lake.....	Joseph Norn.....	Tofield, "	401
52 west of Beaver lake.....	Robt. Logan.....	Ross Creek, "	404
55.....	S. W. Culvert.....	Star, "	446
56.....	Harry Belcher.....	Wostok, "	407
Range 19			
Tp 45.....	A. Lindgren.....	Heather Brae, "	476
50.....	Wm. Thompson.....	Tofield, "	405
51 west of Beaver lake.....	Joseph Norn.....	" "	401
53.....	Fred. Horsted.....	Ross Creek, "	406
55.....	Joseph Alton.....	Star, "	40
56.....	Ole Dahl.....	" "	43
57.....	Peter Lytowski.....	" "	465
Range 20			
Tp 43.....	E. A. Moller.....	Edberg	" 450
44.....	Chas. Johnson.....	"	" 464
45 and 46, south of Battle river and Dried Meat lake	W. E. Crumrine.....	Duhamel,	" 328
45 east of Dried Meat lake..	A. Lindgren.....	Heather Brae,	" 476
46 balance.....	Lewis Hartman.....	Duhamel,	" 432
55.....	John Schwermann.....	Bruderheim,	" 41
56.....	Gustav Werner.....	"	" 53
57.....	Sapat Loposzynski.....	Star,	" 470
Range 21			
Tp 43 east Red Deer lake.....	E. A. Moller.....	Edberg,	" 450
43 west Red Deer lake.....	A. G. Lindblam.....	Asker,	" 430
44.....	Erik Nordgren.....	Lewisville,	" 457

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P.O. ADDRESS	DIST. NO.
West Fourth Meridian.			
Range 21— <i>Con.</i>			
45 four south tiers of Section only.....	Ole Olstad.....	Duhamel, Alta.	437
45 two north tiers and			
46 south of river and including River lots 25 to 48 inclusive.....	John Martz.....	" "	255
46 north of Battle river and including River lots 1 to 24 inclusive.....	C. E. Kinsman.....	" "	436
47.....	C. Weiser.....	Bittern Lake	455
48.....	John Moe.....	" "	433
53.....	J. H. Heacock.....	Agricola,	459
54.....	Albert Nelson.....	Beaver Hills,	20
55.....	Edward Manz.....	F. Saskatchewan,	17
Range 22			
Tp 40 and south half of 41.....	Frank J. Taylor.....	Lamerton,	229
43.....	A. G. Lindblam.....	Asker,	430
44.....	John G. Wilcher.....	Lewisville,	435
45 west and north of Battle river.....	Wm. Wilson.....	Wetaskiwin,	220
45 east and south of Battle river.....	Benjamin Schantz.....	" "	77
46 east of Battle river.....	Fred. Freeman.....	Duhamel,	237
46 north of Battle river and Pipestone creek.....	David Ambler.....	Wetaskiwin,	59
46 west of Battle river and south of Pipestone creek	Frank G. Klyft.....	" "	451
47.....	Geo. A. Clapp.....	Clover Bar,	458
52.....	M. Hanlan.....	Agricola,	2
53.....	D. Simmons.....	F. Saskatchewan,	31
54.....	Edward Manz.....	" "	17
55 south and east of river and River lots 1, 3, 5, 7.....	A. Lamoureux.....	Lamoureux	222
55 north and west of Saskatchewan river and including River lots 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26.....	Geo. C. W. Fearnley...	F. Saskatchewan,	223
56.....			
Range 23			
Tp 43.....	Emil Haybok.....	Asker,	429
44.....	G. Svenson.....	Lewisville,	431
45 south and east of Battle river.....	Benjamin Schantz.....	" "	77
45 balance.....	W. Wilson.....	Wetaskiwin,	220
46 west Battle river and south Pipestone creek..	David Ambler.....	" "	59
46 north and east Pipestone creek.....	Fred Freeman.....	" "	237
47 south and west of Coal lake.....	Fred Burgar.....	" "	228
47 balance.....	F. G. Klyft.....	" "	451
50.....	Bernard Charest.....	Beaumont,	485
51.....	H. Fulton.....	Strathcona,	48
52.....	A. J. Stannard.....	" "	32

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P. O. ADDRESS	DIST. NO.
West Fourth Meridian.			
Range 23— <i>Con.</i>			
53 north and west of river and including River lots 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40 and 42.....	Wm. A. Wilson.....	Edmonton, Alta.	68
53 south and east of river and including River lots 25, 27, 29, 31, 33, 35, 37, 39, 43 and 45.....	Harry M. Quebec.....	Clover Bar “	39
54 north and west of river and including River lots 28 and 30.....	Abraham Lehman	Edmonton, “	23
54 south of river and including River lots 9, 11, 13, 15, 17, 19, 21.....	D. Simmons.....	E. Saskatchewan, “	31
55.....	P. Robinson.....	New Lunnon, “	73
56.....	John Milligan.....	“ “	230
Range 24			
Tp 41.....	G. A. Meadows.....	Urquhart, “	479
43.....	E. C. Bennett.....	Ponoka, “	491
45.....	L. D. Ransum.....	Wetaskiwin, “	241
46 except Town of Wetaskiwin.....	L. T. Miquelon.....	“ “	240
47.....	Victor Thompson.....	Millett, “	434
48.....	L. O. Alsberg.....	“ “	438
49.....	August Falkenburg.....	Leduc, “	37
50.....	Ed. La Bree.....	Beaumont, “	35
51.....	Geo. Andrews.....	“ “	159
52 including River lots 1, 3, 5, 7, 9, 11, 13, 15, 15a, 17, 19, 21, 23, 23a and 25a.	Wm. Place.....	Strathcona, “	47
53 portion north of Saskatchewan river.....	Wm. A. Wilson.....	Edmonton, “	58
53 portion south of Saskatchewan river.....	Harry M. Quebec.....	Clover Bar, “	39
54.....	Geo. Sutherland.....	Edmonton, “	30
55.....	A. E. Putnam.....	Namoo, “	42
56.....	James Jenkins.....	New Lunnon, “	69
57.....	Damase Demers.....	Morinville, “	489
Range 25			
Tp 40.....	E. G. Glanville.....	Lacombe, “	236
41.....	D. Foran.....	Urquhart, “	414
42.....	Jos. Stretch.....	Ponoka, “	326
43 except Sec. 4.....	E. C. Bennett.....	“ “	491
46.....	Wm. Drader.....	Wetaskiwin, “	327
47.....	Victor Thompson.....	Millett, “	434
48.....	Andreas Wetter.....	Saron, “	425
49 except village of Leduc.....	G. Gressell.....	Leduc, “	21
50.....	Jacob Oswald.....	“ “	22
51 and fr 52 south of river.....	John Albert.....	Strathcona, “	24
52 fr part north of river.....			
53 including River lots 50 to 55 inclusive, except the area of the village of St. Albert.....	Jas. Couch.....	Edmonton, “	45

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	P. O. ADDRESS	DIST. NO.
West Fourth Meridian.			
Range 25— <i>Con.</i>			
Tp 54 including River lots 16 to 49, 56 to 64, 18a to 26a, all inclusive except the area of the village of St. Albert.....	Patrick MacFarlan....	St. Albert, Alta.	52
55.....	D. McDonald.....	Morinville, "	235
56.....	W. A. Dubuc.....	" "	226
57.....	Menessippi Massie.....	" "	490
Range 26			
Tp 35.....	J. S. S parks	Knee Hill Valley, "	83
36.....	H. Gulliver.....	Edwell, "	325
37.....	Henry Towers.....	Red Deer, "	323
38 portion south of river.....			
Tp 39 portion south of river.....	Geo. T. White.....	Red Deer, "	278
39 portion north of river.....	F. Jones	Canyon, "	460
40 except village of Lacombe.....	Geo. M. Clark.....	Lacombe, "	259
41.....	W. H. Johnston.....	" "	408
42 fr.....	J. Stretch.....	Ponoka, "	326
48.....	Andreas Wetter.....	Saron, "	425
49.....	Kail Tanskie.....	Calmar, "	424
50.....	F. Berthiaume.....	Strathcona, "	218
52 fr.....	A. E. Groat.....	Spruce Grove, "	28
53 south of Sturgeon river and Big Lake.....	S. C. Hagen.....	Edmonton, "	46
53 portion north of Sturgeon river and Big lake, including Liver lots 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, and A to I all inclusive.....			
54 including River lots 5, 6, 7, 8.....	Chas. Dumont.....	Villeneuve, "	55
55.....	Chas. Dumont.....	" "	55
56.....	A. J. McDougall.....	Riviere-qui-Barre, "	192
	Moses Breault.....	" "	277
Range 27			
Tp 2 east of Belly river.....	Samuel Webster.....	Mountain View, "	58
34.....	W. H. Pindergast.....	Innisfail, "	262
35.....	Jno. McGhee.....	" "	66
36.....	William Inglis.....	Penhold, "	324
37.....	Benj. Murray.....	Red Deer, "	322
38 portions west and north of Red Deer river.....			
38 portion south of river.....	Geo. T. White.....	" "	278
39.....	J. Pennington.....	Blackfalds, "	467
40.....	J. Drader.....	Lacombe, "	225
41.....	D. N. Cannon.....	" "	468
49.....	C. J. Blomquist.....	Calmar, "	422
50.....	C. P. Samuel.....	" "	423
52.....	A. E. Groat.....	Spruce Grove, "	28
53 and fr south $\frac{1}{2}$ 54.....	S. Witmer.....	" "	29
55 and north $\frac{1}{2}$ of fr 54.....	Onesime Como.....	Riviere-qui-Barre, "	38
Range 28			
Tp 2 east of Belly river.....	Samuel Webster.....	Mountain View, "	58
19.....	W. B. Thorne.....	High River, "	213
20.....	Jno. Laycraft.....	Gladys, "	409

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA		NAME OF OVERSEER	P. O. ADDRESS	DIST.	NO.
West Fourth Meridian.					
Range 28— <i>Con.</i>					
Tp	21 portion south of river...	Harold Banister.....	Davisburg,	Alta.	207
	34.....	Edward Bothamley....	Innisfail,	"	221
	35 except village of Innisfail	Wm. Champ.....	"	"	71
	36 west of Red Deer river..	Ed. Brown.....	Tindastoll,	"	81
	36 east of Red Deer river..	Henry Whiteside.....	Penhold,	"	396
	37 portion west of Red Deer river ...	Ebenezer W. Green..	"	"	473
	37 portion west of Red Deer river.....	J. A. Allan.....	Red Deer,	"	481
	38 south of river.....	Geo. T. White.....	"	"	278
	38 and 39 portions west and north of Red Deer river				
	40.....	Walter Needham.....	Lacombe,	"	469
	50 fr.....	C. P. Samuel.....	Calmar,	"	423
	51 fr.....	Frank Sieh.....	Stony Plain,	"	25
Tp	52 fr.....	J. B. Butchart.....	Stony Plain,	"	26
	53.....	Israel Umbach.....	Spruce Grove,	"	44
	54 fr north $\frac{1}{2}$ of	O. Como.....	Riviere-qui-Barre	"	38
	54 fr south $\frac{1}{2}$ of	S. Witmer.....	Spruce Grove,	"	29
Range 29					
Tp	5.....	Frank Crook.....	Pincher Creek,	"	363
	6.....	James Russell.....	"	"	360
	19.....	S. A. Roberts.....	High River	"	441
	20 except village of Okotoks	Alex. McLeod.....	Okotoks,	"	211
	21.....	J. A. Grierson.....	Grierson,	"	214
	22.....	Albert Caseley.....	Calgary,	"	293
	23.....	George Madge.....	"	"	294
	34 fr	Edward Bothamley..	Innisfail	"	221
Range 30					
Tp	5.....	Frank Crook.....	Pincher Creek,	"	363
	6.....	James Russell.....	"	"	360
West Fifth Meridian.					
Range 1					
Fr	5 and 6.....	Geo. Hodgkins.....	Pincher Creek,	"	361
	7 portion north of Middle Fork.....	H. G. Nash.....	Livingstone,	"	418
	8 west half only	H. G. Nash.....	"	"	418
	9 west half only	H. G. Nash.....	"	"	418
	20.....	J. McLaren.....	Panima,	"	275
	21.....	Edmund Cuffling.....	"	"	279
	23 portion east of river	George Madge.....	Calgary,	"	294
	23 portion south Bow river	George Bolt.....	"	"	273
	23 portion north of Elbow river.....	Charles Jackson.....	"	"	219
	24 portion south of Bow river except village of Rouleauville	Charles Jackson.....	"	"	219
	24 north of Bow river except Secs. 19, 20, 21, 28, 29, 30, 31, 32, 33.....	D. Robinson.....	"	"	216
	24 Secs. 19, 20, 21, 28, 29, 30, 31, 32, 33 only	Robt. Collings.....	"	"	390

LIST of Local Improvement Districts with Description of and Name of Overseer.—*Continued.*

AREA	NAME OF OVERSEER	ADDRESS	DIST. NO.
West Fifth Meridian.			
Range 1— <i>Con.</i>			
25 except Sec. 6	D. Robinson	Calgary, Alta.	216
25 Section 6 only	Robt. Collings	" "	390
31	Noah E. Eby	Didsbury, " "	227
32	Wm. Richardson	Olds, " "	12
33	Lars Jensen	" " "	13
34	Chas. Moore	Bowden, " "	224
35	Jno. Begg	Innisfail, " "	67
36 north and west of Red Deer river	Edward Brown	Tindastoll, " "	81
37	L. Martin	" " "	382
38	Jno. Hawk	Burnt Lake, " "	454
40	Daniel Murray	Bentley, " "	472
41	Geo. Bentley	" " "	480
51	Frank Sieh	Stony Plain, " "	25
52	J. B. Butchart	" " "	26
53	Israel Umbach	Spruce Grove, " "	44
Range 2			
Tp 8 Secs. 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, 36 only			
9 Secs. 1, 2, 3, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30 only	H. G. Nash	Livingstone, Alta.	418
7 north of Middle Fork	Wm. Durrant	Gillingham, " "	419
8 Secs. 1, 2, 3, 10, 11, 12 only 22	Joseph Hope	Calgary, " "	210
24 and portion of 25 south of Bow river	Jos. Robinson	" " "	209
24 north of Bow river and Secs. 1, 2, 3, 10, 11, 12, in Tp 25	Robt. Collings	" " "	390
31	W. C. Adam	Didsbury, " "	387
32	Geo. Wadge	Olds, " "	14
33	Peter Jaffery	" " "	15
36 two east tiers of Secs. only	E. Brown	Tindastoll, " "	81
37	Th. Gudmundson	" " "	381
Range 3			
Tp 7 Secs. 1, 2, 9, 10, 11, 12, 13, 14, 15, 16, 23, 24, 25, 26, 35 and 36			
8 Secs. 1, 2, 11, 12, 13, 14, 23, 24, 25, 26, 35 and 36 only	Wm. Durrant	Gillingham, " "	419
21	M. T. Millar	Millarville, " "	282
22	Geo. Young	Priddis, " "	206
24 and part south of river of Tp 25	Jno. Gibson	Springbank, " "	212
32	Arthur Jackson	Harmattan, " "	54
33	Thos. D. Harris	" " "	463
54	Wellington Lee	Lac Ste. Anne, " "	231
Range 4			
Tp 25 portion north of Bow river and 26	Jas. Hewitt	Cochrane, " "	208
54 north half of and part south of Lac Ste. Anne of Tp 55	Wellington Lee	Lac Ste. Anne, " "	231
Range 6			
Tp 26 including River lots 1a to 9 inclusive	F. M. Graham	Morley, " "	217
Range 10			
Tp 24	Samuel Stirton	Canmore, " "	267

LARGE LOCAL IMPROVEMENT DISTRICTS.

The amount of taxes collected and work completed in Large Local Improvement Districts during last year showed a marked increase over the previous year.

The assessment in the districts in operation during the year is given below, and the assessment of the districts during the previous two years is also given for the purpose of reference.

The assessments of large districts for the years 1899, 1900, 1901 and 1902 were as follows:

NO.	DISTRICT	ASSESSMENT			
		1899	1900	1901	1902
500	Calgary.....	\$3,157 75	\$3,044 50	\$3,221 58	\$5,806 19
501	Okotoks	1,026 00	1,053 50	1,053 83	} 5,648 54
502	High River	1,791 00	1,774 50	2,016 00	
503	Pincher Creek	110 00	149 00	1,353 33	} 7,322 67
504	Macleod	923 50	921 00	3,375 10	
505	Cardston	777 00	3,210 75	3,189 81	7,672 19
506	Lethbridge.....	2,534 11	2,499 06	4,514 76	9,031 18
507	Medicine Hat.....	1,994 60	2,336 00	2,568 29	6,838 77
508	Maple Creek.....	3,188 00	3,094 96	3,043 11	3,839 56
509	Swift Current	2,091 00	2,109 00	1,945 00	5,631 58
510	Wetaskiwin East.....			1,700 00	8,407 75
511	Moose Jaw.....	2,727 50	2,682 50	2,947 64	4,571 54
512	Saskatoon.....	2,611 00	2,852 50	2,755 04	5,969 15
513	Battleford	717 00	674 50	689 83	4,775 24
514	New Oxley	4,227 29	4,269 50	1,148 12	included in 504
515	Good Spirit.....	262 00	220 00	542 00	2,530 00
517	Sheho.....	596 80	592 50	707 77	3,886 57
518	Weyburn.....	2,082 00	2,054 00	2,710 20	5,256 28
519	Wetaskiwin West.....			784 00	2,771 48
520	Rouleau		1,552 00	2,400 80	6,767 94
521	Long Lake.....		2,115 00	2,326 12	4,244 44
522	Touchwood.....		5,737 80	4,460 16	8,221 81
523	Innisfail		3,585 00	3,581 89	4,598 84
524	Red Deer		1,996 60	2,103 71	7,810 82
525	Moose Mountain.....		1,074 00	1,744 76	8,176 56
526	Estevan.....		2,139 00	2,574 98	8,257 82
527	Antler		1,751 00	1,836 21	5,729 66
528	Prince Albert.....				13,829 30
529	Fertile Belt.....				2,763 65
530	Beaver Hills.....				1,706 71
537	Kinistino				3,324 21
538	Saltcoats.....				1,118 23
541	Fort Pitt.....				5,334 57
542	Edmonton.....				8,949 52
544	Tilley.....				2,457 52
		\$31,896 55	\$53,569 57	\$61,294 04	\$182,300 29

The assessment for 1902 includes \$60,530.99 assessed against lands held by railway companies. Of this amount \$37,583.20 was assessed on lands held by the C.P.R. Co. and \$22,947.79 on lands of other railway companies.

The work completed in large districts last year was as follows :

Number of miles of road cleared.....	} 423
Number of miles of road graded.....	
Number of bridges repaired.....	97
Number of dams repaired.....	5
Number of bridges built.....	76
Number of culverts built.....	144
Number of wells drilled.....	3
Number of miles of fireguard ploughed.....	917

Full details of the expenditure in districts in connection with the completion of the above work will be found in the Public Accounts for the year.

AMOUNT of Taxes Collected during 1902, and Amount Expended in Large Local Improvement Districts.

NO.	DISTRICT.	TAXES COLLECTED.	AMOUNT OF EXPENDI- TURE.
500	Calgary.....	\$2,481 37	\$6,893 07
502	High River.....	3,432 73	4,268 47
504	Macleod.....	4,852 88	16,791 49
505	Cardston.....	6,742 65	6,566 29
506	Lethbridge.....	8,422 71	7,733 61
507	Medicine Hat.....	4,704 02	5,134 61
508	Maple Creek.....	3,858 85	8,749 95
509	Swift Current.....	5,619 79	3,421 19
510	Wetaskiwin East.....	1,983 33	2,160 67
511	Moose Jaw.....	3,156 21	4,535 96
512	Saskatoon.....	3,608 73	7,197 85
513	Battleford.....	918 04	2,242 18
515	Good Spirit.....	196 00	416 04
517	Sheho.....	716 10	731 37
518	Weyburn.....	3,472 52	5,000 92
519	Wetaskiwin West.....	887 94	1,263 77
520	Rouleau.....	3,765 87	4,260 46
521	Long Lake.....	3,053 21	2,915 01
522	Touchwood.....	2,453 31	6,140 44
523	Innisfail.....	2,382 85	6,377 61
524	Red Deer.....	2,592 43	3,838 51
525	Moose Mountain.....	2,842 79	2,037 39
526	Estevan.....	4,673 61	3,477 02
527	Antler.....	2,635 32	3,345 72
528	Prince Albert.....	2,619 36	2,665 91
529	Fertile Belt.....	886 58	196 09
530	Beaver Hills.....	668 83	201 18
537	Kinistino.....	1,104 44	461 25
538	Saltcoats.....	444 24	870 45
541	Fort Pitt.....	799 70	1,099 96
542	Edmonton.....	2,255 02	1,699 64
544	Tilley.....	2,373 64	520 70
		90,605 07	123,214 78

OVERDUE taxes collected for Small Districts during 1902 and forwarded
to Overseers, \$5,054.05

DISTRICT	AMOUNT	DISTRICT	AMOUNT	DISTRICT	AMOUNT	DISTRICT	AMOUNT
2	\$ 25 00	91	\$ 20 00	186	\$ 57 50	333	17 50
3	18 50	92	5 00	188	12 50	334	17 50
4	13 12	93	2 50	189	12 50	336	7 50
6	10 00	97	11 25	190	15 00	341	22 50
7	5 00	98	5 00	193	42 50	347	5 00
11	248 00	99	34 75	194	15 00	348	2 50
12	10 00	106	85 50	196	96 30	350	5 00
13	15 00	107	42 50	200	24 00	351	5 00
14	22 00	108	20 00	203	5 00	352	2 50
16	2 50	109	15 00	205	12 50	355	15 00
17	5 00	112	16 00	207	42 50	357	5 00
18	20 00	113	34 00	209	7 50	359	9 32
20	5 00	114	7 50	211	27 50	362	72 50
21	36 25	115	10 00	212	2 00	363	10 00
22	23 75	116	5 00	214	22 50	364	15 00
23	10 00	118	2 50	216	85 75	371	5 00
24	33 00	119	9 50	219	10 00	372	62 50
25	2 50	120	30 39	221	5 00	373	27 50
26	5 00	121	2 50	224	17 50	375	10 00
27	19 50	122	7 00	226	5 00	376	49 62
28	13 75	125	23 00	228	7 50	377	30 00
29	2 50	126	95 00	231	2 50	384	5 00
30	12 50	127	32 50	240	20 00	386	33 74
31	31 75	128	2 50	241	2 50	388	2 50
34	7 50	129	12 50	242	42 50	390	12 50
35	9 80	130	12 50	243	12 50	391	14 80
36	12 50	131	17 50	245	65 00	392	7 50
38	5 00	133	10 00	246	66 25	393	53 38
42	30 00	135	37 50	248	2 50	394	2 50
43	2 50	136	167 75	250	20 00	396	5 00
45	54 40	138	2 50	252	21 25	397	7 50
48	5 00	139	17 50	253	20 00	398	19 60
49	17 00	142	20 00	254	12 50	400	2 50
50	41 50	143	15 00	257	2 50	403	2 50
51	7 50	144	27 50	259	15 00	416	20 00
52	22 90	148	5 00	264	25 00	420	15 00
54	5 00	149	20 00	265	52 38	721	24 75
55	28 75	150	5 00	266	2 00	424	2 50
56	27 95	151	127 50	268	5 00	426	5 00
57	22 50	154	20 00	270	12 50	428	10 00
58	7 50	155	52 50	276	15 00	430	7 00
59	32 50	156	22 50	278	7 50	440	5 00
62	5 00	157	10 00	280	5 00	441	2 50
63	27 50	159	11 35	281	21 38	445	46 00
64	17 00	160	5 00	282	10 00	446	5 00
65	10 00	161	5 00	284	15 00	447	20 00
67	8 75	164	11 50	288	21 00	449	11 25
68	8 12	165	10 00	293	15 00	452	35 00
69	10 25	166	5 00	294	25 00	456	2 50
70	57 00	167	30 00	295	2 50	457	2 50
71	25 25	170	96 00	298	5 00	460	31 25
72	11 25	172	2 50	299	27 50	462	30 00
73	30 00	174	12 50	302	2 50	466	5 00
74	15 00	175	8 50	307	15 00	473	5 00
75	53 75	176	32 50	308	2 50	478	2 50
78	46 25	177	7 50	309	7 50	483	2 50
80	2 50	178	22 50	313	5 00	488	2 50
81	100 00	179	5 00	315	7 50	531	27 50
84	17 50	180	10 00	322	2 50	535	10 00
86	9 50	181	5 00	324	15 00	543	5 00
87	5 00	182	30 00	325	12 50		
89	55 00	184	22 50	330	19 00		
90	34 00	185	35 00	331	2 50		

SCHEDULE of Lands forfeited to the Crown for Nonpayment of Local
Improvement Taxes in 1902.

Dist. No.	DESCRIPTION OF LAND	DATE OF FORFEITURE 1902	REMARKS
135	N.E. S. 36-22-30w1.	Jan. 29	Redeemed.
135	S.E. S. 36-22-30w1.	" 29	Redeemed.
135	S.W. S. 36-22-30w1.	" 29	Redeemed.
134	S.W. S. 22-23-31w1.	Nov. 5	
86	N.E. S. 4-20-32w1.	Jan. 29	Redeemed.
143	Lot 10, Blk. 10, Hamlet of Church- bridge Pt. S. 17-22-32w1.	Nov. 5	
143	Lot 4 Blk. 8, Hamlet of Churchbridge Pt. S. 17-22-32w1.	Jan. 29	
143	Lots 13, 14, 31, 32, 33, Blk. 3, Hamlet of Churchbridge Pt. S. 17-22-32w1.	Nov. 5	Redeemed.
143	Lots 11 and 12, Blk. 3, Hamlet of Churchbridge Pt. S. 17-22-32w1.	" 5	
143	S.W. S. 22-22-32w1.	Jan. 29	Redeemed.
132	S.W. S. 25-23-32w1.	Nov. 5	
	Lot 17, Blk. 2, Village of Carnduff Pt. S. 35-2-33w1.	" 5	
149	N.W. S. 2-2-34w1.	" 5	
149	N.W. S. 14-2-34w1.	" 5	
136	All S. 1-21-1w2.	Jan. 29	Redeemed.
136	All S. 9-12-1w2.	" 29	Redeemed.
136	All S. 15-21-1w2.	" 29	Redeemed.
136	All S. 17-21-1w2.	" 29	Redeemed.
136	All S. 21-21-1w2.	" 29	Redeemed.
136	All S. 23-21-1w2.	" 29	Redeemed.
136	E. $\frac{1}{2}$, N.W. $\frac{1}{4}$ and N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ S. 25-21-1w2.	" 29	Redeemed.
136	All S. 27-21-1w2.	" 29	Redeemed.
136	All S. 33-21-1w2.	" 29	Redeemed.
136	All S. 35-21-1w2.	" 29	Redeemed.
136	N.E. S. 36-21-1w2.	" 29	Redeemed.
89	S.E. S. 2-26-3w2.	" 28	Redeemed.
89	N.E. S. 2-26-3w2.	" 28	Redeemed.
11	E. $\frac{1}{2}$ and N.W. $\frac{1}{4}$ S. 27-23-3w2.	" 29	
11	All S. 21-22-3w2.	" 29	Redeemed.
11	All S. 25-22-3w2.	" 29	Redeemed.
11	All S. 31-22-3w2.	" 29	Redeemed.
420	N.W. S. 1-24-3w2.	" 29	
11	S.W. S. 27-23-3w2.	Nov. 5	
170	N.W. S. 21-25-4w2.	" 5	
170	S.W. S. 17-25-4w2.	" 5	
253	N.W. S. 34-26-5w2.	Jan. 28	Redeemed.
515	N.E. S. 6-29-7w2.	" 28	
517	S.E. S. 28-30-9w2.	Nov. 5	
517	S.E. S. 30-30-10w2.	" 5	
27	S.E. S. 20-20-12w2.	Oct. 27	Redeemed.
	Lot 1, Blk. 3, T. 21-13w2, Village of Qu'Appelle.	" 27	
	Lot 2, Blk. 4, T. 21-13w2, Village of Qu'Appelle.	" 27	
398	N.E. S. 32-20-13w2.	" 27	
522	S.W. S. 4-22-13w2.	" 27	
522	S.E. S. 14-24-13w2.	" 27	
522	L.S. 9 of S. 1-23-13w2.	" 27	
397	W. $\frac{1}{2}$ S. 32-20-14w2.	" 27	
522	S.E. S. 10-22-14w2.	" 27	
522	S.E. S. 22-29-14w2.	" 27	
522	N.E. S. 16-21-15w2.	" 27	
522	N.E. S. 36-22-15w2.	" 27	
522	S. $\frac{1}{2}$ S. 22-21-15w2.	" 27	
522	N.E. S. 4-23-15w2.	" 27	

SCHEDULE of Lands forfeited to the Crown for Nonpayment of Local
Improvement Taxes in 1902.—*Continued.*

Dist. No.	DESCRIPTION OF LAND	DATE OF FORFEITURE 1902	REMARKS
522	S.E. S. 28-27-15w2.....	Oct. 27	
522	S.W. S. 20-29-15w2.....	" 27	
522	S.E. S. 36-29-16w2.....	" 27	
522	N.W. S. 18-29-15w2.....	" 27	
522	S.E. S. 20-21-16w2.....	" 27	
522	S.W. S. 28-22-16w2.....	" 27	
522	S.E. S. 6-23-16w2.....	" 27	
138	S.W. S. 6-18-17w2.....	" 27	
138	W. $\frac{1}{2}$ S. 12-18-17w2.....	" 27	Except C.P.R. right of way.
522	S. $\frac{1}{2}$ L. S. 12 and pt. north of river of S.W. $\frac{1}{4}$ S. 18-21-17w2.....	" 27	
522	N.E. S. 4-23-17w2.....	" 27	
70	N.E. S. 28-17-18w2.....	" 27	
520	N.E. S. 36-15-18w2.....	" 27	
421	S.E. S. 24-16-19w2.....	" 27	
421	S.W. S. 24-16-19w2.....	" 27	
421	S. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ S. 24-16-19w2.....	" 27	
520	N.E. S. 12-14-19w2.....	" 27	
91	L.S. 1 of S. 32-18-20w2.....	" 27	
520	N.W. S. 24-15-20w2.....	" 27	
520	N.E. S. 36-15-20w2.....	" 27	
520	S.E. S. 17-15-20w2.....	" 27	
520	S.W. S. 17-15-20w2.....	" 27	
521	S.E. S. 4-22-20w2.....	" 27	
106	N.E. S. 22-44-21w2.....	Jan. 7	Redeemed.
106	N.W. S. 22-44-21w2.....	" 7	Redeemed.
521	S.W. S. 16-21-21w2.....	Oct. 27	
521	S.W. S. 36-21-21w2.....	" 27	
521	S.W. S. 10-22-21w2.....	" 27	
521	N.E. S. 6-24-21w2.....	" 27	
521	Fr. 1 N.W. S. $\frac{1}{4}$ 22-21-22w2.....	" 27	
521	S.W. S. 36-21-22w2.....	" 27	
521	N.E. S. 2-24-22w2.....	" 27	
520	N.W. S. 16-15-24w2.....	" 27	
372	N.E. S. 14-48-25w2.....	Jan. 7	Redeemed.
372	S.E. S. 14-48-25w2.....	" 7	Redeemed.
372	N.W. S. 24-48-25w2.....	" 7	
373	S.E. S. 10-47-25w2.....	" 7	Redeemed.
373	N.E. S. 22-47-25w2.....	" 7	
373	N.W. S. 22-47-25w2.....	" 7	
373	N.W. S. 36-47-25w2.....	" 7	
372	S.E. S. 15-48-25w2.....	Oct. 21	
372	S.W. S. 15-48-25w2.....	" 21	
57	S.E. S. 4-19-25w2.....	" 27	
520	S.E. S. 22-15-25w2.....	" 27	Redeemed.
246	S.W. S. 27-47-26w2.....	Jan. 7	Redeemed.
246	N.W. S. 27-47-26w2.....	" 7	Redeemed.
265	Lots 10 and 12, Blk. C; R. L. 63 Prince Albert Settlement.....	" 7	
265	Blks. 33, 48, 50, 64 and 66, River Lot 76, Prince Albert Settlement.....	" 7	
265	Lots 1 to 22, Blk. 7, River Lot 77, Prince Albert Survey.....	" 7	
265	Lots 1 to 11, Blk. 8, River Lot 77, Prince Albert Survey.....	" 7	
265	Lots 12 to 20, Block 9, River Lot 77, Prince Albert Survey.....	" 7	
265	Lot 22, Blk. 9, River Lot 77, Prince Albert Survey.....	" 7	
265	Lots 1 to 22, Blk. 11, River Lot 77, Prince Albert Survey.....	" 7	

SCHEDULE of Lands forfeited to the Crown for Nonpayment of Local
Improvement Taxes in 1902. — *Continued.*

Dist. No.	DESCRIPTION OF LAND	DATE OF FORFEITURE 1902	REMARKS
265	Lots 1 to 11, Blk. 14, River Lot 77, Prince Albert Survey	Jan. 7	
265	Lots 1 to 7 and 16 to 22, Blk. 13, River Lot 77, Prince Albert Settlement..	" 7	Redeemed.
265	Lots 1 to 8 and 19 to 24, Blk. 8, River Lot-80, Prince Albert Settlement..	" 7	Redeemed.
265	Lots 4 to 11, Blk. 10, River Lot 80, Prince Albert Settlement	" 7	Redeemed.
265	Blks. 3, 4 and 6, River Lot 80, Prince Albert Settlement.....	" 7	Redeemed.
242	N.W. S. 8-18-26w2	Oct. 27	
242	S.W. S. 16-18-26w2	" 27	
242	N.E. S. 8-18-26w2	" 27	
242	S.E. S. 36-18-26w2	" 27	
276	S.E. S. 10-17-26w2	" 27	
511	S.W. S. 10-16-26w2	" 27	
288	S.E. S. 6-45a-27w2	" 21	
288	S. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ S. 10-45a-27-w2.....	" 21	
288	N.W. S. 14-45a-27w2	" 21	Redeemed.
392	N.W. S. 18-47-27w2	" 21	
203	N.E. S. 26-18-27w2	" 27	
203	S.W. S. 30-18-27w2	" 27	
125	N.W. S. 2-43-2w3	Jan. 7	
125	S.W. S. 14-43-2w3	" 7	Redeemed.
125	N.W. S. 28-42-2w3	" 7	Redeemed.
125	S.W. S. 34-43-2w3	Oct. 21	
331	S.W. S. 24-42-2w3	" 21	Redeemed.
512	Fr. 1 E. $\frac{1}{2}$ S. 35-38-4w3	" 21	
512	L.S. 3 and 6 of S. 31-38-4w3	" 21	Redeemed.
393	Lots 3, 4 and 5, Blk. 154, Village of Saskatoon	" 21	
512	S.W. S. 1-37-5w3	" 21	
512	S.W. S. 2-37-5w3	" 21	
512	N.W. S. 2-37-5w3	" 21	
280	N.E. S. 26-36-6w3	" 21	
513	S.W. S. 20-46-15w3	" 21	
513	N.W. S. 20-46-15w3	" 21	
513	S.E. S. 2-44-16w3	Jan. 11	
513	N.W. S. 3-42-17w3	" 11	
513	Fr. S. $\frac{1}{2}$ of S. $\frac{1}{2}$ of S. 35-43-17w3	Oct. 21	Redeemed.
233	S.W. S. 3-46-19w3	" 21	
508	S.W. S. 34-11-22w3	" 17	
508	N.W. S. 20-10-25w3	" 17	
508	N.E. S. 32-9-27w3	" 17	
508	S.W. S. 12-8-29w3	" 17	
507	N.E. S. 26-10-3w4	" 17	
506	N.E. S. 18-19-21w4	" 16	
17	S.W. S. 8-55-21w4	Nov. 20	
502	S.W. S. 34-19-22w4	Oct. 15	
506	N.W. S. 26-7-22w4	" 16	
17	S.W. S. 14-55-22w4	Nov. 20	
451	S.W. S. 4-47-22w4	" 20	
429	N.W. S. 36-43-23w4	" 18	
504	N.E. S. 30-8-24w4	Oct. 16	
504	N.W. S. 29-8-24w4	" 16	
504	N.W. S. 30-8-24w4	" 16	
504	S.W. S. 30-8-24w4	" 16	
504	S. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ S. 30-8-24w4	" 16	
505	S.E. S. 16-2-24w4	" 16	
505	S.E. S. 20-2-24w4	" 16	
505	S.W. S. 20-2-24w4	" 16	

SCHEDULE of Lands forfeited to the Crown for Nonpayment of Local
Improvement Taxes in 1902.—*Continued.*

Dist. No.	DESCRIPTION OF LAND	DATE OF FORFEITURE 1902	REMARKS
504	N.E. S. 16-9-25w4.	Oct. 16	
505	N.W. S. 6-2-25w4.	" 16	
505	S.W. S. 24-2-25w4.	" 16	Redeemed.
505	N.W. S. 17-2-25w4.	" 16	
505	S.E. S. 9-1-25w4.	" 16	
514	S.E. S. 23-10-25w4.	" 16	
21	S. $\frac{1}{2}$ S. 18-49-25w4.	Nov. 20	
24	N.W. S. 10-52-25w4.	" 20	Redeemed.
45	N.E. S. 26-52-25w4.	" 20	
226	S.W. S. 30-56-25w4.	" 20	
505	N.E. S. 18-2-26w4.	Oct. 16	
514	S.W. S. 6-10-26w4.	" 16	
514	S.W. S. 26-9-26w4.	" 16	
514	S.E. S. 26-9-26w4.	" 16	
460	S.W. S. 10-39-26w4.	Nov. 18	
460	S.E. S. 20-39-26w4.	" 18	
505	All S. 7-3-27w4.	Oct. 16	
514	Part S.E. S. 14-10-27w4.	" 16	Redeemed.
225	N.W. S. 16-40-27w4.	Nov. 18	Redeemed.
225	S.W. S. 16-40-27-w4.	" 18	Redeemed.
467	W $\frac{1}{2}$ of N.W. $\frac{1}{4}$ S. 2-39-27w4.	" 18	
500	S.E. S. 6-25-28w4.	Oct. 15	Redeemed.
505	E. $\frac{1}{2}$ S. 1-3-28w4.	" 16	
71	Lot 25, Blk. 12, Innisfail.	Nov. 18	
71	Lot 6, Blk. 13, Innisfail.	" 18	
396	N.W. S. 10-36-28w4.	" 18	
44	S.E. S. 12-53-28w4.	" 20	
294	S.W. S. 22-23-29w4.	Oct. 15	
500	N.W. S. 22-24-29w4.	" 15	
216	S.W. S. 26-24-1w5.	" 15	
216	Lot 14, Blk. 3, in S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lots 1 and 2, Blk. 3, in S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lots 5 and 6, Blk. 3, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lots 11 and 12, Blk. 4, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lots 4 and 5, Blk. 4, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lot 13, Blk. 4, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lot 14, Blk. 4, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lot 3, Blk. 5, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lot 6, Blk. 2, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lots 7 and 9, Blk. 2, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lot 19, Blk. 2, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lot 26, Blk. 2, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
216	Lot 28, Blk. 2, S.E. $\frac{1}{4}$ S. 22-24-1w5.	" 15	
	Lot 5, Blk. 17, Pt. of S. 10-24-1w5,		
	Village of Rouleauville.	" 15	
	Lots 2 and 3, Blk. 29, Pt. of S. 10-24-1w5, Village of Rouleauville.	" 15	
	Lot 4, Blk. 29, Pt. of S. 10-24-1w5, Village of Rouleauville.	" 15	
	Lot 7, Blk. 29, Pt. of S. 10-24-1w5, Village of Rouleauville.	" 15	
500	N.E. S. 20-26-1w5.	" 15	
501	S.E. S. 4-22-1w5.	" 15	
362	N.W. S. 9-7-1w5.	" 15	
501	N.W. $\frac{1}{4}$ and N. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ S. 34-21-2w5.	" 15	Redeemed.

SCHEDULE of Lands forfeited to the Crown for Nonpayment of Local
Improvement Taxes in 1902.—*Continued.*

Dist. No.	DESCRIPTION OF LAND	DATE OF FORFEITURE 1902	REMARKS
362	N.W. S. 4-7-2w5.....	Oct. 16	
362	All S. 8-7-2w5.....	" 16	
523	N. $\frac{1}{2}$ S. 32-34-2w5.....	Nov. 18	
282	S.W. S. 12-21-3w5.....	Oct. 15	
282	S.E. S. 24-21-3w5.....	" 15	
282	S.W. S. 36-21-3w5.....	" 15	
500	S.W. S. 24-25-3w5.....	" 15	
502	S.W. S. 26-19-3w5.....	" 15	
502	N.W. S. 26-19-3w5.....	" 15	
523	S.E. S. 10-29-3w5.....	Nov. 18	
523	S.W. S. 10-29-3w5.....	" 18	
523	N. $\frac{1}{2}$ S. 10-29-3w5.....	" 18	
523	S.E. S. 16-29-3w5.....	" 18	
523	S.W. S. 16-29-3w5.....	" 18	
523	N.W. S. 16-29-3w5.....	" 18	
523	W. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ S. 16-29-3w5.....	" 18	
500	S.E. S. 18-25-4w5.....	Oct. 15	
500	N.E. S. 30-24-4w5.....	" 15	
501	N.E. S. 36-20-4w5.....	" 15	
500	N.W. S. 10-27-5w5.....	" 15	
500	S.E. S. 36-26-5w5.....	" 15	
500	S.W. S. 26-24-5w5.....	" 15	
500	N.E. S. 24-24-5w5.....	" 15	

Any of the above lands may be redeemed within one year from date of forfeiture.

Parcels of land forfeited during 1901	118
Parcels of land forfeited during 1902	256
	— 374
Lands forfeited in 1902 and redeemed in 1902	84
Lands forfeited in 1901 and redeemed in 1902	62
	— 146
Parcels of lands finally forfeited to end of 1902 and title vested in the Crown	54
Parcels of lands sold by tender during 1902	17
Total amount realised from sale of lands	\$5,776.03
Average price obtained per acre	2.20

VILLAGES.

Four new villages were established during 1902. Lacombe and Wetaskiwin, which had previously been administered under The Village Ordinance, were at the last session of the Legislative Assembly granted municipal powers as towns. The list of existing villages, with names of overseers, is given in the usual schedule form.

VILLAGES.

NAME OF VILLAGE	NAME OF OVERSEER	DATE OF ORGANISATION
Alameda.....	James A. Hopper.....	29th December, 1898.
Arcola.....	Daniel McEachan.....	11th April, 1901.
Battleford.....	S. J. Dunning.....	31st December, 1898.
Blairmore.....	W. A. Beebe.....	3rd September, 1901.
Broadview.....	Angus McLeod.....	29th December, 1898.
Carnduff.....	Nelson Spencer.....	28th March, 1899.
Carlyle.....	E. H. Hayward.....	13th March, 1902.
Didsbury.....	Cornelius Hiebert.....	24th September, 1901.
Duck Lake.....	William Fawcett.....	23rd December, 1898.
Estevan.....	Lewis A. Duncan.....	2nd November, 1899.
Fort Saskatchewan.....	Basil C. D'Easum.....	1st March, 1899.
Fleming.....	C. J. Jupp.....	2nd July, 1896.
Frank.....	S. W. Gebo.....	3rd September, 1901.
Gainsborough.....	Thomas Fraser.....	23rd May, 1894.
Gleichen.....	V. I. Beaupre.....	24th January, 1899.
Grenfell.....	Reginald Gwynne.....	12th April, 1894.
High River.....	Percy Taylor.....	5th December, 1901.
Innisfail.....	August Kremer.....	15th December, 1899.
Leduc.....	David Wade.....	15th December, 1899.
Lumsden.....	Andrew Blair.....	23rd December, 1898.
Maple Creek.....	David Kearns.....	26th April, 1896.
Magrath.....	George W. Birch.....	20th August, 1901.
Manor.....	Philip Cook.....	15th April, 1902.
Morinville.....	Philias Gaudette.....	24th August, 1901.
Mountain View.....	Joseph H. Gold.....	13th February, 1902.
Okotoks.....	Willis Wentworth.....	25th October, 1899.
Olds.....	W. J. Brumpton.....	26th May, 1896.
Oxbow.....	Frederick Amos.....	7th March, 1899.
Pincher Creek.....	A. R. Dempster.....	18th August, 1898.
Ponoka.....	Cook Myers.....	22nd October, 1900.
Qu'Appelle.....	Wm. M. Thompson.....	2nd June, 1898.
Raymond.....	Edward McCarthy.....	30th May, 1902.
Rosthern.....	H. A. McEwen.....	23rd December, 1898.
Rouleauville.....	W. R. Winter.....	2nd November, 1899.
Saltcoats.....	W. B. Smithett.....	4th April, 1894.
Saskatoon.....	J. R. Wilson.....	16th November, 1901.
Stafford.....	Thomas Foster.....	7th May, 1901.
St. Albert.....	A. C. Herbert.....	7th December, 1899.
Stirling.....	William Miller.....	3rd September, 1901.
Wapella.....	W. J. Tudge.....	23rd December, 1898.
Weyburn.....	John A. Wood.....	22nd October, 1900.

IRRIGATION BRANCH.

Staff.....	{ Assistant chief engineer.
	{ Assistant engineer.
	{ 1 survey assistant.
	{ 1 draughtsman.
	{ 1 stenographer and typewriter.

The work of this branch is scheduled in the usual form for reference :

Number of letters received.....	1,595
Number of letters sent out.....	1,620
Number of forms and circulars prepared and mailed...	3,000
Number of applications for water rights with necessary memorials, plans and notices received, examined and recorded (in duplicate).....	21

Number of licences received and recorded (in triplicate)	13
Number of transfers and agreements for use of water received and recorded (in triplicate)	164
Number of licences of occupation for right of way for irrigation works over Crown lands received and recorded	4
Number of returns, etc., received, recorded and placed on file respecting hydrographic records	630

The present standing of irrigation canal and ditch construction in the Territories may be summarised as follows :

Number of canals and ditches constructed	163
Length of constructed canals and ditches	475 miles
Number of acres susceptible of irrigation from constructed canals and ditches	623,362
Number of water rights recorded for domestic, power and other purposes	140

In submitting this report I desire again to direct attention to the faithful service rendered by every member of the staff during the year. The perusal of the report, and consideration of the work done will, I think, make it at once apparent that had it not been the aim of the members of the staff by persistent effort to keep up with the mass of work it would have been impossible to have dealt with the volume of correspondence and other work, which I think can be pointed to as a record for a department with the staff roll of the Territorial Department of Public Works.

Your obedient servant,

J. S. DENNIS.

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